"THE NEXT WAR"

An Appeal to Common Sense

WILL IRWIN

"THE NEXT WAR"

"A BIT OF A BRUTE"

The use of bayonet practice was moral; by it a blazing, vicious hatred was worked up in the common soldier.

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AN APPEAL TO COMMON SENSE

BY

WILL IRWIN

AUTHOR OF "MEN, WOMEN AND WAR,"
"A REPORTER IN ARMAGEDDON," ETC.

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CHAPTER I

WAR AND PROPHECY

MANKIND, it has been said, lives by happy combinations of words, thinks by phrases. With phrases, no less than with engines of destruction, the world fought the Great War of 1914-18—"The War for Democracy" on the Allied side, "The Place in the Sun" and "Spreading our Kultur" on the German. Volumes of political essays and bales of editorials have less influence among the American people at present than that popular expression, "A hundred per cent American."

In the two years since the Armistice, a new phrase has entered the discussion of military affairs not only in America but in all the European countries—"the next war." It appears many times daily in the reactionary press of Berlin, Vienna, Budapest, Paris. It sprinkles the reports in the staff colleges of the Continent, of England, of the United States. It has furnished already the theme for books in all European languages. "The First World War," the

title of a book lately published by Colonel Repington, is only a variant on this phrase.

Prophecy concerning the trend of political affairs is not only perilous but well-nigh impossible. In all the prophecy of the late war, who foretold the future course of Russia? There were whisperings, indeed in the Allied countries, there were loud forecasts in Germany, that Russia might withdraw from the Entente; but who prophesied the curious circumstances of her withdrawal and the still more curious results to which it led? Ten European statesmen believed that Holland, Switzerland or even Spain might enter the great war to one who counted on the United States. And who, before 1917, prophesied in what manner we would be the deciding factor or even hinted at our curious influence on the peace? Who looked forward and foresaw the American flag flying over the mighty fortress of Ehrenbreitstein at Coblenz?

Such affairs as these belong to the political side of war, partake of its uncertainty. It would be foolish, therefore, for even the wisest and best-informed statesman, and still less for a journalist, to prophesy what nations or combinations of nations might oppose forces in that "next war." The complexity of the question, involving as it does economics, internal politics, religion, sudden outbreaks of mob-mind, shifts of population, the rise of leaders as yet unknown, renders forecast impossible. Beside such a game, chess is as simple as jackstraws.

But forecasting the methods, strategies and effects of future wars is more like a purely mathematical problem, and infinitely easier. Such forecasts have been made in the past; and the best-informed and more intelligent of them have been vindicated by the course of events. Before the Russo-Japanese war, military critics who combined sound information with sound imagination said that in the next war between thoroughly prepared armies, the frontal lines would become deadlocked in trenches, and that battle could then be won only by a sudden and well-conceived surprise on the flank. That is exactly the history of the Russo-Japanese war; Nogi's great flanking movement won the battle of Mukden after the main forces had undergone some weeks of stalemate in the front trenches. Had the Russians possessed a single scout aeroplane, Nogi's success would have been impossible. The aeroplane appeared a few years later, proved itself not a toy but a practical machine. Then the military critics, of the class before mentioned made a new forecast. A war between densely-populated and thoroughly armed peoples such as those of Europe, they said, might be decided by an overwhelming initial thrust. Failing that, it must settle down to a long deadlock in trenches, a war of attrition with unprecedented losses, to be decided only when one side or the other crumpled up through exhaustion of economic resources and of morale. That view was expressed for the United States in Frederick Palmer's novel,

"The Last Shot." And these forecasts of the military critics might stand now as histories of the great war.

So it is possible to speak with some authority concerning the character of that "next war," especially since so many able Europeans have already recorded and analyzed the experiences and lessons of "the first world war." Though we cannot do more than guess at the participants, we can foresee the methods of that struggle and its direct and indirect results on the lives and property, the souls and bodies, of the nations who find themselves involved.

It is difficult, however, rightly to see the future without at least a glance at the past. It is doubly difficult in this discussion, because during the war of 1914-18 certain forces hitherto smouldering burst into blaze. Not only did the character of warfare change, but its whole relation to peoples and to human life. From now on, we must consider war in an entirely new light. An understanding of the difference between old wars and "the next war" is essential to an understanding of the present struggle between militarism and reasonable pacifism, between the aristocratic ideal of society and the democratic, between those who believe in that next war and those who are groping toward a state of society which will abolish war.

CHAPTER II

THE BREEDING OF CALAMITY

MAN alone, among the higher animals, seems characteristically to fight his own kind to the death. Doubtless before there was law or morals the primitive savage often got the woman, the ox or the stone knife which he wanted simply by killing the possessor. With the organization of society, groups and tribes began to do the same thing collectively as a means of acquiring live-stock, wives, slaves or territory; and we had war. In primitive society, if we may judge from our study of existing savages, wars were often comparatively bloodless affairs, settled by a contest between two champions or by a few wounds. Whole groups and tribes may have lived on the pacifist theory, as do today certain African nations which will not keep cattle because cattle bring on raids and peace is with them preferable to property.

When the curtain lifts on recorded history, tribes were collecting into nations, and kingship was firmly fixed in human affairs. By now, war also was a permanent human institution; every throne was propped up by an army. The relation of warfare to

this early progress has been traced by H. G. Wells in his "Outline of History." A people settled down, developed agriculture, town life, a literature, the mechanical arts, the beginnings of scientific knowledge; accumulated wealth and desirable luxuries. In this process, they became to the barbarian point of view "effeminate," and easy prey for conquest.

Warfare, then and for centuries afterwards, was mostly a matter of individual fighting. That side was the victor which had the greater average of men strong and skilled with the sword or lance, accurate with the bow. The settled peoples, busy with the arts of peace, had not the time for that life-long, intensive, athletic training which made good warriors. The barbarians, therefore, beat them in battle, took their wealth, settled down among them, learned their arts. They in turn became weakened for warfare, and another wave of barbarians repeated the process. Though there were exceptions, such as the long hold of the civilized Roman Empire, this was the general rhythm of ancient wars; even of mediæval wars.

Viewed in this light, we have reason for arguing that warfare was a positive if costly benefit. The world in general was without means of communication; the written word which carried knowledge was unavailable to whole peoples, to all but a few even among the most favored peoples. Travel beyond one's national boundaries was almost unknown;

the barbarians had an invariable custom of killing strangers. Possibly by no other means than warfare could the rudiments of civilization have reached the outer fringe. When the wild Persians overwhelmed them, the peoples of the Mesopotamian Basin had a written language, an understanding of primitive mechanics, a system of star-measurement. Left alone, they might have gone on to advanced mechanics such as the steam engine, to the truth about sidereal space and the world in space. The Persians blew out all that bright promise; yet before they themselves were conquered, they had acquired what their captives had learned. So it went, the world over, except in those three or four rather abnormal centuries during which Rome held sway over the world; and not even Rome was wholly an exception. She conquered Greece; but intellectually she became so absorbed by the Hellenic people that every Roman gentleman must speak perfect Greek or he was no gentleman. The Goths came into Southern Europe unlettered barbarians; in a few centuries, they had in Ravenna the most advanced civilization of their time; and they learned it all from the conquered. The Northmen got their letters, their mathematics, their mechanics from subject peoples. The German Junkers professed that they waged the late war to spread their culture by conquering; the ancient peoples spread their culture by being conquered. He would be indeed a preju-

diced pacifist who ignored this aspect of old war, or denied the possibility that in such times war was beneficial.

In those days of primitive nations warfare had no rules, or very few, of mercy or decency. The conquering king and his men, undeterred by scruples, did as they pleased with the conquered. If it served their whim or purpose, they slaughtered a surrendered army, even the women and children, of a whole surrendered tribe. The kingly inscriptions of Egypt and Assyria boast of such deeds as glories of the crown. When the tribe was spared, it was often merely that it might work to pay the victor tribute, or to furnish him with slaves. If there were protesting voices they have left no record. But as early as the great days of Greece, we find a little faint criticism both of war itself and its methods. The thing, certain men thought, was an evil, a calamity. It could not be stopped, probably; but it was an evil nevertheless. There did arise, however, a dim code—rudimentary morals of war. It was no longer quite ethical to kill women and children, to slaughter your prisoners. It was often done; but it required explanation and apology. When, some half-century before Christ, Julius Cæsar put to death the Usepetes and Tenectri, he was denounced in the Roman senate, and Cato even proposed that he be turned over to the Germans.

Christianity, when it came at last powerfully into human affairs, carried forward this moral move-

ment. A divine institution applied by imperfect men, it did not strike at the roots of war; nor indeed did it seem clearly to recognize them. It established, however, the principle that an unjust war was wicked; and it did strive to ameliorate the unnecessary horrors and to fix the tradition of chivalrous warfare. The Truce of God, by which it became wicked to fight on certain days of the week, was an attempt in this direction.

The movement collapsed in the great religious or half-religious wars of the sixteenth century, and for a reason quite logical and understandable. Both sides were fighting heresy, a sin and crime—they thought—which did not merely injure men in this life as do most ordinary crimes, but which condemned their souls to an eternity of misery. No punishment was too severe for heresy. Hence such massacres as those of the Thirty Years' War in Germany, and the sack of Antwerp in the Low Countries.

When mankind came out of this madness, the drift toward chivalrous warfare was resumed. The code, by the twentieth century, had become definite; it was a chapter in every general military text book, a course in the education of every professional soldier; finally it was sanctioned almost as international law by the Hague Peace Conference. In principle, war must rest as easily as possible on non-combatants such as women and children; nor might even an armed enemy be killed unnecessarily. In detail,

it was agreed that a city might not be besieged until the non-combatants had been given time to get away from the ensuing bombardment and starvation, that the victors holding occupied territory must be responsible for the lives of the inhabitants, that prisoners of wars must not only be spared but adequately fed and housed, that surgeons, nurses and stretcher-bearers must have every reasonable opportunity to rescue and succor the wounded; finally that certain "barbarous" methods of killing, such as explosive bullets and poison gases, might not be used. And the military clan of all nations generally accepted this code as the law and the gospel; they had been bred in the idea of chivalry, and had developed a beautiful and strict conception of professional ethics which implied truth and honor toward their own, and a sense of mercy toward their enemies. With such an attitude toward war, the nations entered the unprecedented struggle of 1914-18.

In the meantime, another current had been running among the European peoples; it is necessary to understand that in order to understand the present situation. In the period since the religious wars, in general during a long period before that, warfare had settled into the hands of professional armies, officered by the aristocracy, recruited in general from the dregs of the population, padded with mercenary soldiers of fortune. These forces were comparatively small, even in time of war.

In 1704, Marlborough won the battle of Blen-

heim and imposed his will on the Continent of Europe with 50,000 mixed British, Dutch and Austrian troops. France was considered, in this period, the great military power of the world. Just before the Revolution of 1789 her armies had a theoretical war strength of 210,000, or about one in 100 of the population. Nor was the economic burden of warfare very heavy. The weapons were comparatively few and primitive—flint lock muskets for the infantry, sabres and lances for the cavalry, plain smooth-bore cannon for the artillery. Speaking generally, ammunition consisted of four standard commodities—black powder, round lead bullets, flints, and solid cannon balls. The factories which supplied enough of this ammunition for the limited armies of the day represented only a very small part of the nation's productive forces. And, except in regions swept by the armies, the industries of the nations went on in war much as in peace. Even an unsuccessful war laid on the people only a comparatively light burden of taxation. The losses in men were not so great but that the general increase in races almost instantly filled the gap. At Blenheim, before mentioned, Marlborough lost less than five thousand men both killed and wounded, the defeated French and their Bavarian allies only eleven thousand.

Then came the French Revolution. The new, fanatical French Republic, opposed by an alliance of all the kings of Europe, its frontier invaded, its

nobility joined with the enemy, faced the alternative of a struggle with every resource it had or extinction and the gallows. The principle of conscription was decreed for the first time by a great nation. Every man capable of bearing arms must serve or hold himself ready to serve. And national industries also were mobilized, even if crudely. Theoretically, at least, all the iron-workers of France went to work on guns, cannon, pikes and ammunition. In the very streets of Paris stood the forges, hammering out bayonets.

There followed the twenty years of the Napoleonic wars, wherein conscription was applied in fact if not always in name. From that time, through fifty years of comparative peace, the thing grew as a principle of statecraft. It did not become settled and universal, however, until after the Franco-Prussian War of 1870. Prussia, ambitious leader of the German states, herself led by men with ruthless genius, had applied the principle of conscription, had planned and studied the possibilities of modern warfare as they had never been studied before. The German army was ready "to the last buckle" when it burst on France, swept up the brave but ill-organized army of MacMahon, took Metz and Paris, and in six months brought about a peace which tore from France two provinces, nearly her whole supply of iron ore, a discriminating tariff agreement, and the unprecedented indemnity of a billion dollars. Germany had shown the way to the militarists.

Now we must go back again and trace for a moment a third current, running into that cesspool which overflowed in 1914.

The era of kingship, as a focus for human loyalty, had passed into the era of Powers. And these Powers grew as predatory as the Roman Empire, though less frankly and obviously so. The age of machinery, of intensive manufacture, had arrived. Europe produced only a part of the raw materials which she needed for her furnaces, her forges or her looms. That country would prosper best, it was felt, which held the tightest grip on the sources of raw material. Every European nation was turning out more manufactured goods than it could use at home; all needed foreign trade; and "trade follows the flag." Finally, as national wealth was multiplied through the fruitful processes of machinery, Europe began to pile up surplus capital. Investment in new, undeveloped lands was much more profitable to capital than domestic investment under tight conditions.

Out beyond the fringes of European civilization lay barbaric and semi-civilized peoples owning raw materials, ready to buy European manufactured goods, promising still other benefits to the nation which could possess them either as conquerors or "protectors." It was easy for a European statesman, who wanted a fruitful barbarian country, to find the pretext. A native king, we will say, was encouraged to get hopelessly into debt with a Euro-

pean government or banking firm. An "incident" occurred. There were Europeans who made a trade of bringing on such incidents. National honor was offended; also, there was the debt. The army of the European power involved—sometimes bloodlessly, sometimes after a brief campaign—assumed the responsibilities of the native king. The debt was paid in time; but the European control remained. I describe here, and only as an example, one method among many.

When any given power so extended its "influence," it tried to make that influence exclusive. It must have all the raw materials and all the markets which it cared to take. It must have all the rights to invest capital. When the European nation, for fear of its rivals, could not take over any undeveloped nation outright, it tried to bring it at least within its "sphere of influence"—a kind of half-control leading in time to full conquest. The critics of this system call it "financial imperialism." For European diplomacy, backed by enormous armies, by great national banking houses, by munitions manufacturers, had become almost frankly commercial.

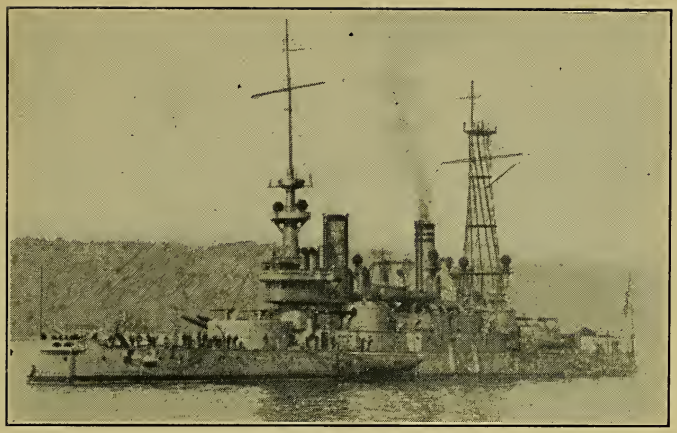
Diplomacy kept the long peace which this policy always endangered by a system borrowed from the eighteenth century and much improved in the nineteenth. "The Balance of Power" it used to be called; now it was termed "the Concert of the Powers." Nations, led by the great powers, allied themselves in such manner as to keep the opposing

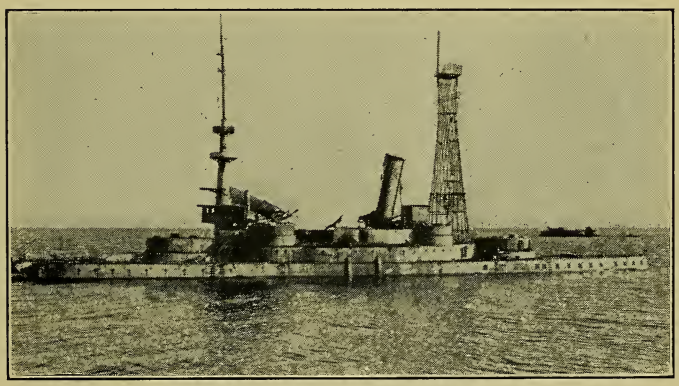
sets of interests at about equal strength. If you expect to make a successful aggressive war, you must have a superiority of forces. Two nations about even in military resources are not likely to fight. The risk of failure is too great. And so with two alliances. But all this time, another current was running strongly among European nations. Each alliance was struggling to build up stronger potential power than the other. This helped when, as happened every four or five years, there rose a visible conflict of interests. The stronger you were in a military way, the stronger would be the situation of your diplomats. Every year, the European "race of armaments" grew more intense.

Expressed in less abstract terms, this was the general state of Europe during the forty or fifty years which followed the Franco-Prussian war:

On the Continent, military conscription had become universal. If Great Britain did not follow, it was because she, an island kingdom, was checking armies with an unprecedented navy. On the Continent, every young man must serve his two or three years with the colors, learning to be a modern soldier. Retired to the Reserve, he must at intervals drop his work and drill again, in order "to keep his sword bright." The financial burden of arming this soldier grew even greater. As I shall presently show, weapons of warfare never until recently improved so fast as industrial tools; but they did improve almost too rapidly for the finances of the

nations. The Germans decided that a repeating rifle could be used with advantage in infantry tactics; the French must scrap from five to ten million single-shot rifles and replace them by repeaters. When the British proved that a battleship of unprecedented size entirely armed with big guns could thrash any small battleship armed with guns of mixed calibres, all existing battleships were headed toward the junk-yard, and the rival nations must build dreadnoughts. When France worked out a field-gun unprecedented for accuracy and rapidity of fire, thousands of German field-guns must go to the melting-pot or to museums, to be replaced by imitations of the French "soixante-quinze." And the expense of these improvements increased almost in arithmetical ratio. A repeating rifle, with its complicated mechanism, cost much more than a smooth bore. "First-line" ships for modern navies cost in the seventies one or two million dollars; a crack dreadnought costs now a matter of forty or fifty million dollars. The burden of taxation weighed heavier and ever heavier on the common man and woman of Europe. There were signs just before the Great War that the race of armament was slowing up. Nations seemed to hesitate about adopting obvious but costly improvements. The true cause back of this, doubtless, was that taxation was reaching the "point of saturation"—for peace times at least. Agitation against military service began to make itself heard. It took two years from the work-





OBSOLETE ARMAMENT

The *U. S. S. Indiana,* before and after it became a target for the 14-inch rifles of the superdreadnought *Oklahoma.*

The *Indiana* cost $5,800,000 when built. The latest superdreadnoughts cost at least $40,000,000.

ing life of every able-bodied young man; and its obvious end was not creation of wealth, but destruction.

But the nations in general could not let go, even had their statesmen desired to renounce "Financial Imperialism" and its buttress of great standing armies. If for no other reason, because Germany sat in the centre of Europe, unconverted to any theories which involved military disarmament; and England sat behind her sea walls, afraid of any theories which involved naval disarmament. But Germany was setting the pace. She had learned the "lesson" of the Franco-Prussian war—a "nation in arms," an army methodically, scientifically prepared from its boots to its plan of campaign, eternally ready for that sudden stroke which catches the enemy unprepared. Scientific military preparation had laid the foundations for the prosperity and greatness of modern Germany. More scientific preparation—more prosperity and greatness! That German genius for organization, scarcely suspected before 1870, sprang into full blaze. And the army was organized into every German institution. The state schools educated the children to make them not only good citizens and efficient workers, but also good soldiers. With a skill and thoroughness which was the marvel of its time, Germany wove the army into the fabric of civilian life. Her state railways were laid down not only for commercial needs but also with a view to moving great bodies of troops

toward any critical point on the frontiers. Her great steel works, making and exporting the tools and machinery of civilian life, could be changed over with a minimum of trouble into factories for munitions of war. She specialized, indeed, on munition making —furnished the rifles and cannon for the little wars of the far countries.

The "psychological preparation" imposed by the rulers of Germany was just as thorough. A state-controlled pulpit, a state-controlled press, state-controlled teachers and university professors, hammered or insinuated into the German people exaggerated, conceited patriotism and the thought of war—the "Religion of Valor." With the national talent for intellectual speculation, the Germans of the governing class worked out a philosophy which sounds quaint to practical-minded Americans, but upon which men lived and died. The state was a thing with a soul. It was the duty of the subject, his highest end, to advance the glory and interest of the state, no matter if that glory made every subject poorer and less happy. We, of course, look upon the state as a means of getting together and promoting the happiness and security of its members. If it does not generally have that result, it is nothing. When it comes to promoting the interests of the state—this philosophy held—all ordinary rules of morals are off. Acts like theft, murder, unchastity, cruelty, calling for severe punishment when

performed against other citizens of the state, became holy when performed for the state.

War was the highest manifestation of the state, the supreme act which gave it glory, the opportunity for the subject to prove his devotion. War was good in itself. It was, first of all, natural. All biological life was a struggle. The weak went down, the strong survived; by this process the species evolved and improved. So, the weaker races go down before the stronger, for the improvement of the human breed*. Of course, your own race was the strongest, the most worthy of survival. Races grew soft in peace, strong in war. The talk about doing away with warfare was "immoral, unnatural, degrading."

Such, briefly, were the ideas upon which Germany was being fed. We all know that, I suppose. Most of us have heard of Bernhardi and his book "Germany and the Next War"—the extreme expression of this view. What we do not perhaps appreciate is that such opinions were not peculiar to Germany. In the Great War, in the settlement after the Great War, Europe was divided not only by a horizontal

*I shall treat later on of other articles of this faith but this one might as well be nailed here and now. Admitting what is popularly called the Darwinian theory of the origin of species through survival of the fittest, evolutionists still doubt whether man did not free himself from the law of evolution at the moment when he fashioned the first tool, built the first fire. From that time, he became not the creature of his environment, but its master. But even if the man-species still lives, grows and improves by the law of evolution, the struggle for existence is, in the natural, animal state, between individual and individual, not between tribe and tribe, horde and horde. This is like many other militarist arguments; it is neither true nor scientific; it only seems so.

line between Entente Allies and Germanic Allies, but by a vertical line between the aristocratic element and the democratic element. The set of ideas which I have quoted above were distinctly aristocratic in their aims and origins; by an aristocracy in secure control they were disseminated. But the other European aristocracies held exactly the same view—not so logically worked out perhaps, not so frankly expressed, but the same at the bottom. Lord Roberts, the venerable and respected British general, issued a kind of manifesto at the beginning of the war. Less brutal and feverish in expression, it is in thought the same thing as the mouthings of the German Junkers. "War is necessary for the souls of people," he said in effect; "it is the tonic of races." You heard the same sentiments from the French General Staff. The difference was only this: whereas in the Entente countries the democratic idea kept a balance with the aristocratic as in Great Britain and Italy, or maintained the ascendence as in France, the aristocratic element held in Germany the control over government, over most material activities, over most sources of public opinion. Germany, said the aristocrats of the neutral European nations, had made aristocracy scientific, brought it up to date, showed how it could be fastened on to a modern state. That was why these neutral aristocracies were one and all pro-German.

There were German dissenters, of course. There were in fact many of them, as the Social Democratic

vote showed in 1913, the Revolution in 1918. But their dissent was as yet ineffective. Probably the majority of Germans believed in this Religion of Valor which they had learned with their Christian prayers. Certainly the majority believed that the intensive, perpetual preparation for instant war was a necessity to a nation "ringed with enemies." The preparation went on, ever and ever more burdensome and complex. So did the propaganda, the "mental preparation." By 1914, the Germans published and read more books on war than all the other nations of the world put together. "The man who builds the ship will want to sail it," say the nautical experts. And the man who forges the sword will want to wield it. By 1914, the mine was laid and ready. With their "financial imperialism," their "concert of the powers," their race for dominating armament, all the European nations were responsible for that. The assassination of an Austrian prince, a mere police court case, lit the fuse. Accident alone was responsible for that. The fuse might have been trampled out; but the Kaiser and his counsellors held back, held others back. Germany was responsible for that—Germany and an aristocratic, militarist system, "prepared to the last buckle." On the day of mobilization, the French conscripts went to their appointed places sober or pale or weeping according to their individual characters. The first young British volunteers marched to the recruiting offices with a solemn consecration

in their faces, as men who go to take a sacrament. The Germans rushed to arms shouting and singing. During the early days of the Belgian invasion a German Junker officer, who seemed well informed upon events within the enemy lines, spoke to me with tears of pride in his eyes concerning this contrast.

"Ah, Germany was beautiful—beautiful!" he said.

CHAPTER III

SECOND YPRES

So the nations went to war, armed to the teeth, ready as nations never were before. It was to be a supreme struggle; all intelligent Europe knew that. Every available ounce of national resource, human material and energy was necessary to victory. If the rest did not understand, Germany soon taught them. And from the beginning, the "code of civilized warfare" began to melt away. In the first week, Great Britain and Germany both violated its spirit if not its letter. It was provided in the code that when siege was laid to a city the non-combatants must have a chance to get away in order to escape starvation as well as bombardment. With her dominant navy, England at once put a food-blockade on Germany. She knew that Germany produced but 80 per cent of her own food; and that this was done only through intensive fertilization and the employment in harvest and plowing time of a million and a half Russian laborers. The state of war would reduce the supply of fertilizers, would cut off the Russian laborers, would take from the land most of the domestic laborers. It was possible, other means

failing, to starve out Germany, the weakest civilian baby as well as the strongest soldier. From the first day of the war—in plan if not at once in action—Germany prepared in the same way to starve out the British Isles with submarines. When she applied her submarine campaign, Germany violated at once an old article of the code which provided that merchant ships, about to be sunk for carrying contraband, must be warned and searched and that their crews must be allowed to escape. She began to sink without warning. If Germany abandoned this method in 1915, it was only because the United States protested, and she feared to drag us into the war against her. She resumed her original plan in 1917, and we did enter the war.

It was provided in the code that civilians should be given warning of a bombardment. But the aeroplanes had arrived; and aeroplane tactics depend not only upon speed but upon surprise. In the first fortnight of the war and as unexpectedly as a bolt of lightning from a clear sky, a German Taube appeared over Paris, dropped a bomb which blew in the front of a shop and killed two civilian butchers peacefully wrapping up meat. Germany invaded Belgium. As part of her long-studied plan for keeping everything serene on her line of communications against France, she seized as hostages a few leading citizens of each town through which she passed, shot them if the town did not behave. And the taking of hostages had been so long abrogated

by the code that a French Encyclopedia of War issued in the sixties of the last century defined it as "a usage of barbarous and semi-civilized warfare, for centuries discontinued by civilized nations." The "code" was going fast. A structure of merciful if superficial ethics which had been three centuries building was toppled over in two weeks.

Eight months later, humanity arrived at a date as significant in our annals, I think, as October 12, 1492 or July 4, 1776. It is April 22, 1915, during the Second Battle of Ypres. That day, the Germans rolled across the Western trench-line a cloud of iridescent chlorine gas which sent French, Arab, English and Canadian soldiers by the thousands back to the hospitals, coughing and choking themselves to death from rotted, inflamed lungs. Had the German General Staff possessed imagination enough to use gas wholesale instead of retail on that day, they might have won their war then and there.

The significance of the second Battle of Ypres needs explanation.

Through all the centuries of mechanical and scientific improvement, military armament—the means of killing men—had lagged behind. The primitive man killed in war by hitting his opponent with a hard substance—a club or stone. Later, he sharpened the stone so that it would more readily reach a vital spot, and had a knife or a sword. He mounted the knife on a stick to give himself greater reach, and had a spear. He discovered the projecting power of the

bow, which would send a small spear beyond his own reach. Gunpowder arrived; that gave still further and more powerful projection. But the principle, the one method of killing a man in war, remained the same—hit him with something hard. We had learned many ways of controlling and transmuting for the purposes of ordinary life the power stored up by the sun—steam, electricity, the energy of falling water. Military science knew but one way—the explosion of chemicals. If we look into a battleship, that "great, floating watch," we marvel at the intricacy of her machinery. But we should find that the engines, the turbines, the delicate and complicated electrical instruments, are all devices first invented for purely industrial activities and merely adapted for war. We should find the guns, the actual killing instrument, among the simplest machines on board. In centuries of mechanical invention and mechanical improvement, very little higher intelligence and no genius at all had been put into the mechanics of killing men.

There were good reasons. The men who discovered the great principles back of modern machinery and industrial method, such as Newton in physics, Friar Bacon and Faraday in chemistry, Ampère and Volta in electricity, were concerned only with pure science, with extending the field of human knowledge. The clever inventors and adapters—such as Stephenson with his locomotive, Morse with his telegraph, Edison with his electric light and phono-

graph, Marconi with his wireless, Langley and the Wrights with their aeroplanes—were concerned with improving the civilian processes of production and transportation, or with adding material richness to modern life. Those who, in biology and kindred sciences, followed the paths blazed by the giants of the nineteenth century, were even more directly benevolent in their ends. Ehrlich and Takamine worked to save, preserve and lengthen human life. No first-class scientific mind was interested in research having for its end to destroy human life.

Nor did the military caste, whose business—stripped of all its gold lace and brass buttons—was to kill, add anything fundamental to the science of destruction. It is traditional that what few real improvements there have been in armament, such as the machine-gun and the submarine, were invented by civilians and by them sold to armies. Military life tends to destroy originality. It makes for daring action, makes against daring thought. In the second place, there was the code. Professional soldiers wanted, sincerely wanted, to render warfare as merciful as possible. They shrank from carrying the thing out to its logical conclusion. Killing by gas had been theoretically proposed long before the war; and most military men had repudiated the idea. They had even fixed their objection in the stern agreements of the Second Hague Conference.

But from April 22, 1915 that agreement and all similar agreements were abrogated. The Germans

had found a new method, with enormous possibilities, for killing men. This weapon was powerful enough to win the war, if the Allies refused to reply in kind. They did reply in kind. From that moment, to use the language of the streets, the lid was off. Nations, instead of merely armies, were by now mobilized for war. Those great and little scientific minds, engaged hitherto in searching for abstract truth or in multiplying the richness of life and the wealth of nations, could be turned toward the invention of means of destruction whether they wished or no. A new area of human consciousness was brought to fruition. A new power in men was unloosed and this one most sinister. Its established past performances, its probable future results, I shall consider elsewhere.

This release and stimulation of the human imagination for the business of killing was perhaps the main social event of the Great War. But I hinted at another almost equally important when I said above that nations instead of armies were now mobilized for war.

The Germans had entered Armageddon with an unprecedented equipment of munitions. The electric-minded French perceived at once, the slower-minded British only a little later, that this was to be a war of factories as well as of men and bent all their resources toward organizing the national life for this purpose. Every woman enlisted in muni-

tions-making, in agriculture, in clerical work for the business offices of war, released a soldier to the Front. Women were drawn in by the thousands, later by the millions. At the end of the war Great Britain, homeland and Colonies together, had in arms less than five million soldiers; but homeland and Colonies together were employing three million women in the direct processes of war, besides millions of others who gave as volunteers a part of their time. It became a stock statement that if the women of either side should quit their war-work, that side would lose.

Now since munitions and food had grown as important as men, since to stop or hinder the enemy munitions manufacture or agricultural production was to make toward victory, the women in war were fair game. Near London stood the great Woolwich munition works and armory, turning out guns, explosives and shells. Probably before the end of the war, as many women worked there as men. It was raided again and again by German aircraft. Why not? Totally to destroy the Woolwich works would be equivalent for purposes of victory to destroying several divisions. The old code was logical for its time when it forbade the killing of women and other non-combatants. Then, killing a woman had no point. Now it had a most significant point.

The same stern logic of "military necessity" lay behind the continual air raids on cities, fortified and

unfortified. Germany began this process. She was in a position to do so. She held the advanced lines. Her front was only seventy miles from the capital and metropolis of France, less than a hundred from that of Britain, whereas, to attack Berlin, the Entente Allies must travel by air nearly four hundred miles. Tons of illogically sentimental propaganda have been published concerning these air-raids. In the beginning, the intention was, on any standard barbarous, cruel, and stupid. The German General Staff, rich in scientific knowledge but poor in the understanding of human nature, thought by this means to "break down the resistance" of the hostile peoples, to bully them into a submissive attitude. In this they failed utterly; air raids had rather the effect of lashing the French and British into increased effort.

But the raids were continued for a more practical purpose. The nerve-centres of war are in the great cities, and mainly in the capitals. Suppose for an extreme example that the Germans in one overwhelming raid or a series of raids had destroyed Paris. All the main railroad lines which supplied the army at the front ran through Paris. There, the trains were switched, rearranged and made up. In Paris also were the headquarters of those innumerable bureaus vitally necessary to the conduct of modern war, with all its complexities and coordinations. Had the railroad connections been destroyed, had the bureaus lost their quarters, their

books, their personnel, the French army at the front must have been thrown into confusion.

By the same token the more they approximated to this end, the more the air-bombardments made toward victory. Both Parisians and Londoners have expressed to me the opinion that the Gotha raids and the Big Bertha bombardments were "worth while" for the effect they had on the business of life. "There's no use in denying," said an Englishman, "that we did less work than usual—at least a quarter less—on the days of air raids."

Still further: defence against air-raids is very difficult; so the French, for example, were forced to hold back from the Front in order to defend their capital scores of aeroplanes and many batteries of guns, whereas the Germans seldom raided with more than a dozen aeroplanes. That factor alone made air raids useful for strictly military ends. When the Allies began raiding German cities in 1917 and 1918, when they prepared to raid Berlin on an unprecedented scale in that campaign of 1919 which never occurred, they were not mainly inspired by revenge, as horror-stricken German civilians and war-heated Allied civilians asserted. The General Staff were after results, not personal satisfaction. They knew that aeroplane raids on cities brought military results. Still further; they knew that armies exist and operate for the defence of peoples. The object of wars, after all, is not the destruction of armies. It is the subjugation of peoples. In strik-

ing at the great cities they were striking, a little blindly as yet but still directly, at the heart of resistance.

Of course, when you attack and bombard a city without warning—and an air raid, to be effective must come without warning—you include in the circle of destruction every living thing in that city, the weakest non-combatant with the strongest soldier. "Baby killers" the Londoners called the Zeppelins. They were just that; for baby-killing had become incidental to military necessity.

Let me here add another departure from the "code," less significant than the new ways of killing and the inclusion of all civilians in the circle of destruction, but still important to humanity. Under its spirit, usually under the letter, an army destroyed property only when that destruction would weaken the enemy's armed forces and his general military resistance. Sherman's devastation during his march to the sea was ruthless and terrible, and is not yet forgotten in the South. But it had a direct military object—to render impossible the provisioning of the Confederate Army. The Germans, setting the pace, carried the logic of destruction one stage further. In their early rush they had taken and held securely the coal mines of Northern France. Those mines, yielding half of the French native coal supply, they deliberately flooded and destroyed. This had no immediate military purpose. In German hands, the mines were useless to the

French army. No, the German General Staff wanted simply to weaken France permanently, to make that part which they did not seize in their proposed German peace a subject nation commercially. The collapse of the Germans in 1918 was so sudden that the Allies did not enter her territory while in a state of war and it is impossible to say that they would not, in other circumstances, have followed the general rule of war and replied in kind.

Let me go no further with all this, but summarize: "The Code," a merciful though artificial body of ethics, built up by Christianity and all other humanitarian forces through two thousand years of warfare, had collapsed. In most respects, we were back to the ethics of the barbarian hordes. The barbarians of the twentieth century B. C. killed in any manner which their imaginations suggested; so now did civilized men of the twentieth century A. D. The barbarian of the twentieth century B. C. killed the women and children of the enemy as tribal self-interest seemed to dictate; as now did the civilized men of the twentieth century A. D. The barbarians of the twentieth century B. C. made slaves of the conquered people or forced them to pay tribute; so virtually—in such acts as the destruction of the French mines—did civilized men of the twentieth century A. D.

In only two important respects did the code still stand when we emerged from the Great War of 1914-18. We were generally sparing prisoners,

granting life to those who gave up resistance and surrendered. But would this article have stood in case the war went on? Germany held several millions of French, British, Belgian, Italian and Russian prisoners. At an ever-increasing pace, she was being starved out. Suppose she had elected to defend herself literally to the last life, as besieged cities have often done? With an underfed army, with civilians dropping dead of starvation in the streets—what of the prisoners? She could not send them back to multiply the number of her enemies. She could not dump them into the adjacent neutral nations to devour their scanty supplies of food. Rather than face this, Switzerland or Holland would have entered the war against Germany. What might have become of the prisoners?

Only one article of the code stood firm. With occasional violations, the "right of the wounded" was respected. Speaking generally, both sides spared the hospitals.

And with the break-down of "the code," another sinister factor, unknown to the barbarians, had entered warfare—that exact scientific method of research which has wrought all our miracles of industry was at the service of the warriors. The current of scientific work and thought, flowing hitherto toward improvement of mankind, was now dammed; it was flowing backward, toward the destruction of mankind.

CHAPTER IV

THE NEW WARFARE

Now let us take up one by one the new factors in warfare introduced by the Great War of 1914-18, and see what effects they had on that war, what inevitable or probable effects on "the next war." To make it all easier to follow, let us begin with that factor which we can grasp most readily—the business of killing. Here, in treating of the past, I shall take testimony of the war itself mostly from my own direct or second-hand observations, extending from the Battle of Mons to the Battle of the Argonne; and in speculating on the future mostly from the sayings and writings of professional soldiers, many of them—though not all—thorough believers in militarism and "the next war."

After the Second Battle of Ypres lifted the lid, those men of science, those high technicians, who had put themselves at the service of armies, experimented with new methods of killing. Liquid flame —burning men alive—was introduced on the Western front. This proved of only limited usefulness. The British introduced the tanks. These were important to the general change in warfare, as I shall

show later; but they added nothing to the direct process of destroying life. Gas seemed by all odds the most promising of the new weapons. That simple chlorine which the Germans used in 1915 gave place to other gases more complex and more destructive to human body-cells. At first released only in clouds and dependent upon a favorable wind for their effect, the chemicals which generated these gases were later loaded into shells and projected miles beyond any danger to the army which employed them.

As gas improved, so did the defence against it. The crude mouth-pads, consisting of a strip of gauze soaked in "anti-chlorine" chemicals, which the women of England rushed to the Front after Second Ypres, were succeeded by more secure and cumbersome masks. The standard mask worn by the Americans in 1918 was a complex machine. It was cleverly constructed to fit the face air-tight; its tank held antidotes for all known German gases. However, this was an imperfect protection, because men could not or would not wear it all the time. It took the sternest discipline to make troops keep on their masks even in time of danger. Surprise gas-bombardments were always catching them unmasked. A slight leak was fatal. In that stage of chemical warfare, the losses from gas-shells in proportion to the quantity used, were at least as great as those from high-explosive shells.

Yet the mask was a protection; let us therefore

study to beat it. In the spring attack of 1918, the Germans introduced their "mustard gas." Unlike its forerunners, it was poisonous to the skin as well as to the lungs. Breathed, it was deadly; where it touched the skin, it produced terrible burns which resisted all ordinary treatment. These wounds were not fatal unless they covered great areas of the body. In that, mustard gas was unsatisfactory.

Now in all the experiments following Second Ypres, the chemists had in mind three qualities of the ideal killing gas. First, it should be invisible, thus introducing the element of surprise. The early, crude gases, even in small quantities, betrayed their presence by the tinge they gave the atmosphere. Second, it should be a little heavier than the atmosphere; it should tend to sink, so as to penetrate dugouts and cellars. Third, it should poison—not merely burn—all exposed areas of the body. American ingenuity solved the problem. At the time of the Armistice, we were manufacturing for the campaign of 1919 our Lewisite gas. It was invisible; it was a sinking gas, which would search out the refugees of dugouts and cellars; if breathed, it killed at once—and it killed not only through the lungs. Wherever it settled on the skin, it produced a poison which penetrated the system and brought almost certain death. It was inimical to all cell-life, animal or vegetable. Masks alone were of no use against it. Further, it had *fifty-five times* the "spread" of any poison gas hitherto used in the war.

An expert has said that a dozen Lewisite air bombs of the greatest size in use during 1918 might with a favorable wind have eliminated the population of Berlin. Possibly he exaggerated, but probably not greatly. The Armistice came; but gas research went on. Now we have more than a hint of a gas beyond Lewisite. It cannot be much more deadly; but in proportion to the amount of chemical which generates it, the spread is far greater. A mere capsule of this gas in a small grenade can generate square rods and even acres of death in the absolute. . . .

So much at present for gas. It is the new factor, the one which may hold the greatest promise for future improvement in war. But there has been much improvement in certain methods already known and used, which in future wars may be auxiliary to gas. There was the old, stock weapon of modern wars—the tube from which hard substances were projected by chemical explosion—in short, the gun. In proportion to initial cost, the power of the gun and of the auxiliary explosion its chemical had increased enormously. The smokeless TNT and other high explosives employed in this war were but little more expensive, pound for pound, than the old black powder of past wars; in effect they were incomparably more destructive. Men in war defended themselves against this increased destructive power by an old method made new; they burrowed deep into the inert earth. But even at that, destruction proceeded faster than the defence against destruc-

tion—hence the unprecedented death-list of this war.

When we came to the vital element of property —the accumulated wealth of the world—we find the disparity between cost and effect much greater.

Let us reason here by example: the battle of Waterloo, whose glories and horrors Europe sang for a hundred years, resolved itself at one stage into a struggle for Hougoumont Château. All through the battle, French and British regiments, supported by artillery, were fighting for that group of buildings. The guide to the Château points out to the tourist the existing marks of artillery fire and the restorations. A corner knocked off from the chapel, a tiny outhouse battered down, a few holes in the walls no bigger at most than a wash-tub—that is the extent of the damage. Now while it is impossible to make an accurate estimate, it is still quite certain that the damage to Hougoumont Château was smaller in money value than the cost of the cannon-balls, shells and gun-powder which caused it. By contrast: during 1916, the Germans dropped into the town of Nancy some of their 380-millimetre shells—the largest and most expensive generally used in the war. The cost of such shells was probably between three and four thousand dollars. I was in Nancy during one such bombardment, when a big school house was hit directly. It seemed literally to have melted. In restoring it after the war, the French had to rebuild from the ground. And that school house cost more than two hundred thousand dollars. As a gen-

eral rule, when a shell of the Great War hit a building, it destroyed much more value in property than its own cost plus that of its projecting charge. The shells which missed are aside from this discussion; for the artillerymen of Napoleon's army missed just as often in proportion.

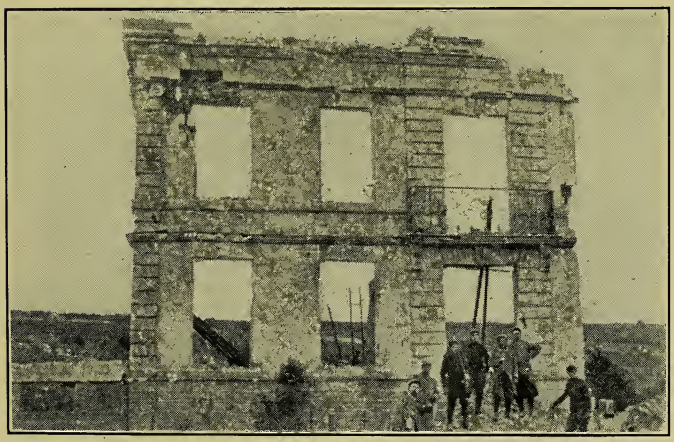
Yet Nature always imposes limits on human ingenuity. We arrive at a point beyond which we cannot much further improve any given device. Military experts generally agree that we have about reached that impasse with guns and their explosive projectiles. The "Big Bertha" which bombarded Paris from a distance of seventy miles was only an apparent exception. It was not a real improvement; it was a "morale gun," useful to the "psychological campaign" of the Germans. It had no accuracy; the gunners "ranged" it on Paris in general, and the shells, according to atmospheric conditions, fell anywhere over an area some four or five miles across.

No; there will be no great improvements in guns and high-explosive projectiles. Even if we have not reached the limit of invention, other methods of destroying life and property hold out much more promise. Among these is the aeroplane. There, we have not nearly reached the barrier set by Nature upon Ingenuity.

A modern weapon works by two distinct processes —the projection, which sends the death-tool far into the region of the enemy and the action—usually some kind of explosion—by which it kills. The

ARTILLERY FIRE IN 1815

Hougoumont Château. During the Battle of Waterloo, it was bombarded all day by Napoleon's cannon. Result: A small outbuilding wrecked (ruin in the foreground), a corner at the peak of the chapel (to the left) knocked off, and some small holes, since repaired, in the front walls and the roofs.



ARTILLERY FIRE IN 1915

A château in Northern France. It was wrecked by a single big-calibre German shell.

bombing aeroplane is essentially an instrument of projection. It extends "range" beyond any distance possible to a gun. The army aeroplanes of 1914 were, in 1916, mentioned by the aviators as "those old-fashioned 'busses'." In 1918, airmen employed similar scornful language concerning the machines of 1916. However, the range of the 1914 aeroplanes greatly excelled that of any gun; they could venture at least a hundred miles from their bases. By 1918, they were venturing two or three hundred miles; and the Allied armies planned, in the spring of 1919, to make regular raids on Berlin, some four hundred miles away.

To adopt again the terminology of artillery; as the aeroplane grew in range, so did it grow in calibre. The bombs dropped on Paris in 1914 were not much bigger than a grape-fruit; the bombs prepared for Berlin in 1919 were eight feet high and carried half a ton of explosive or gas-generating chemicals. Not only were they greater in themselves than any gun-shell, but they carried a heavier bursting-charge in proportion to their size. As you increase the calibre and range of a gun, you must increase the thickness of the steel casing which forms the shell, and correspondingly reduce the proportion of explosives or gas-forming chemical. But an air bomb—which is dropped, not fired—needs only a very thin casing. A big shell is in bulk mostly steel; an air bomb is mostly chemical. It was in shells like these that we would have packed our

Lewisite gas had we decided to "eliminate all life in Berlin."

However, air-bombardment was during the Great War essentially inaccurate. A gun, in land operations, is fired from a solid base; the artilleryman can aim at his leisure. A bomb is dropped from a base which is not only in rapid motion but partakes of the instability of the air; the bombing aviator must make an inconceivably rapid snapshot. Still, even at this crude stage, air-fire grew much more accurate. In 1914 and 1915, the bombs seldom hit their objective, unless that objective were a city in general. By 1918, they were usually hitting on or near their targets. It was still, however, mostly a matter of individual skill, not of accurate machine-work.

Then, just before the Armistice, an American, binding together many inventions made by civilians for civilian purposes, showed a dazzling way to the warfare of the future. He proved that aeroplanes, flying without pilots, could be steered accurately by wireless. This meant that the aeropiane had become a super-gun. Calibre was increased indefinitely. An aeroplane could now carry explosive-charges or gas-charges up to its whole lifting capacity of many tons. It was no longer merely a vehicle; it could be virtually a self-propelling shell. And in the matter of accuracy, the uncertain human factor was nearly eliminated, as happens in most highly-improved machines. An expert on this kind

THE INCREASING SIZE OF BOMBS

(Left) A bomb in 1914-15. A sample of the largest aerial bomb used at the beginning of the war.

(Right) A bomb in 1918. This bomb carried an explosive charge of one ton, and was prepared to bomb Berlin in 1919.

of marksmanship, hovering in an aeroplane or Zepplin many miles away, with a fleet of protecting battle-planes guarding him to prevent hurried workmanship, could guide these explosive fleets to their objective whether town or fortress. Here, in effect, was a gun with a range as long as the width of European nations, a bursting charge beyond the previous imaginations of gunnery.

CHAPTER V

TACTICS OF THE NEXT WAR

Now before going further, let us pull together our argument, so far as it has gone.

Here is a projectile—the bomb-carrying aeroplane—of unprecedented size and almost unlimited range; here is a killing instrument—gas—of a power beyond the dream of a madman; here is a scheme of warfare which inevitably draws those who were hitherto regarded as non-combatants into the category of fair game. We need but combine these three factors in our imaginations, and we have a probability of "the next war" between civilized and prepared nations. It will be, in one phase, a war of aeroplanes loaded with gas shells. And professional military men in all lands are remarking among themselves that the new warfare may—some say must—strike not only at armies but at the heart of the matter—peoples.

A Prussian officer, of the old school said to his American captor in 1918, "France is the sheepfold and Germany is the wolf. The French army is the shepherd's dog. The wolf fights the dog only in order to get at the sheep. It is the sheepfold we

want." Upon such sentiments the Allied world looked with some horror—then. Even the Germans somewhat withheld their hands. I cannot find that gas-bombardment was ever used on the cities behind the lines. Yet the Germans were preparing in 1918 a step toward that method. Had the war continued, Paris would have been attacked from the air on a new plan. A first wave of aeroplanes would have dropped on the city roofs tons of small bombs which released burning phosphorus —that flame cannot be extinguished by water. It would have started a conflagration against which the Fire Department would have been almost powerless, in a hundred quarters of the city. Into the light furnished by this general fire, the Germans proposed to send second and third waves of aeroplanes loaded with the heaviest bombs; they could pick their objectives in the vital parts of the city as they could not during an ordinary moonlight raid. From that the gas-bombardment would have been but a step. I have shown what we might have done to Berlin in 1919 with giant bombs carrying Lewisite gas. The Allies, I can testify personally, did not intend to use this method "unless they had to." But the elimination of civilians by the hundreds of thousands, perhaps by the millions, through gas bombardments, was a possibility had the war continued until 1920.

In "the next war," this gas-bombardment of capitals and great towns is not only a possibility but a strong probability—almost a certainty. Military

staffs have had time to think, to carry out the changes and discoveries of the Great War to their logical conclusion. They see that even with the known gases, the existing aeroplanes, Paris, Rome or London could in one night be changed from a metropolis to a necroplis. If any military man hesitates to apply this method—and being human and having a professional dislike of killing civilians, he must hesitate—the thought of what the enemy might do drives him on to consideration of this plan of warfare, and to preparation. There are at this moment at least two elements in the world quite capable of turning this trick had they the means and control. The method is so effective that if you do not use it, some one else will. You must be prepared to counter, to reply in kind.

Here are the words of a few authorities:

Brigadier General Mitchell of the United States Army, pleading with the House Committee on appropriations for more defensive aeroplanes, said that "a few planes could visit New York as the central point of a territory 100 miles square every eight days and drop enough gas to keep the entire area inundated . . . 200 tons of phosgene gas could be laid every eight days and would be enough to kill every inhabitant."

Captain Bradner, Chief of Research of the Chemical Warfare Service, said at a Congressional hearing:

"One plane carrying two tons of the liquid [a

certain gas-generating compound] could cover an area of 100 feet wide and 7 miles long, and could deposit enough material to kill every man in that area by action on his skin. It would be entirely possible for this country to manufacture several thousand tons a day, provided the necessary plants had been built. If Germany had had 4,000 tons of this material and 300 or 400 planes equipped in this way for its distribution, the entire first American army would have been annihilated in 10 or 12 hours."

Brevet Colonel J. F. C. Fuller this year won in England the Gold Medal of the Royal United Service Institution for his essay on the warfare of the future. All through, he avoids this topic of attacks on the civilian population; he is treating, like a true old-time military man, of armies alone. But Fuller says concerning the general possibilities of gas, which he believes to be the weapon of the future: "It is quite conceivable that many gases may be discovered which will penetrate all known gas armor. As there is no reason why one man should not be able to release 100 cylinders simultaneously, there is no reason why he should not release several million; in fact, these might be released in England today electrically by a one-armed cripple sitting in Kamchatka directly his indicator denoted a favorable wind."

And Major-General E. D. Swinton, of the British army, said in discussing Colonel Fuller's paper:

"It has been rather our tendency up to the pres-

ent to look upon warfare from the retail point of view—of killing men by fifties or hundreds or thousands. But when you speak of gas . . . you must remember that you are discussing a weapon which must be considered from the wholesale point of view and if you use it—and I do not know of any reason why you should not—you may kill hundreds of thousands of men, or at any rate disable them."

Here, perhaps, is the place to say that Lewisite and the gas beyond Lewisite are probably no longer the exclusive secret of the United States Government. We had allies in this war; doubtless they learned the formula. Even if not; once science knows that a formula exists, its rediscovery is only a matter of patient research, not of genius. And gas-investigation is quietly going on abroad. If they have not arrived at the same substances, the chemists of Europe have worked out others just as deadly. The scientific investigation of the killing possibilities in gas is only four years old.

Colonel Fuller says bluntly in his illuminating essay that the armies which entered the late war were antiquated human machines, that military brains had ossified. Warfare, he says, must be, will be, brought up to the standard of civilian technique. Henceforth, general staffs must not wait for unstimulated civilians to invent new machines or methods of attack and defence. They must mobilize high technicians and inventors in the "pause between wars" as well as in war, bend all their energies

toward discovering new ways of killing. And virtually, that improvement in warfare is already begun. In the laboratories of Europe,—just as the farseeing prophesied after Second Ypres—men are studying new ways to destroy life.

Scientific discovery involves the factors of leisure. To reach great things, a man cannot be hurried. War is all organized hurry. With both sides racing for victory, the savants of Europe had not the leisure to reach out toward the unknown. They worked with poison gas; that was already discovered, and merely needed improvement. Now, in the pause since the Armistice, they are venturing into the unknown. Let us take testimony again from the public and official remarks of General Swinton:

". . . ray warfare. I imagine from the progress that has been made in the past that in the future we will not have recourse to gas alone, but will employ every force of nature that we can; and there is a tendency at present for progress in the development of the different forms of rays that can be turned to lethal purposes. We have X-rays, we have light rays, we have heat rays. . . . We may not be so very far from the development of some kinds of lethal ray which will shrivel up or paralyze or poison human beings . . . The final form of human strife, as I regard it, is germ warfare. I think it will come to that; and so far as I can see there is no reason why it should not, if you mean to fight. . . . prepare now . . . we must envisage these new forms of

warfare, and as far as possible expend energy, time and money in encouraging our inventors and scientists to study the waging of war on a wholesale scale instead of . . . thinking so much about methods which will kill a few individuals only at a time."

In the war just finished,—according to neutral and scientifically dispassionate Danish historians—nearly ten million soldiers died in battle or of wounds; probably two or three million soldiers were permanently disabled. Yet we were killing only by retail, where in "the next war" we shall kill by wholesale.

The same late war, according to those same Danish statisticians, cost thirty million more human beings—mere civilians—"who might be living today." Yet taking Armageddon by and large, the weapons were deliberately turned against civilians with comparative infrequency. Declining birth rates account for a part of those thirty millions. The rest, for the most part died of the "accidents," of such warfare as we waged. If we except the Armenian massacres, we find that only a small fraction of the total went to their graves through attacks aimed directly at their lives—as in the atrocities of the Hungarians against the Serbs, the Russians against the East Prussians, the Germans against the Belgians; or in attacks aimed indirectly at their lives—as in the submarine sinkings and air raids. Most of them died just because they were in the way of war—died of malnutrition in the blockaded countries, of

Estimated Loss of Soldier Lives in Recent Wars.

starvation and exposure in the great treks away from invading armies. But now we are to have killing by wholesale instead of retail; and killing, unless I miss my guess, aimed directly at civilian populations.

So much for civilian lives in "the next war." What about soldier lives, when we come to kill by wholesale instead of by retail? The answer involves a discussion of military weapons, tactics and strategy in "the next war."

I have not yet discussed the tank. Britain contributed that improvement, as Germany contributed gas. It involved the combination of one device almost as old as warfare—armor—with two devices borrowed from the arts of peace—the gasolene engine and the caterpillar wheel. It was an instrument of the offensive in that it gave men and guns greater mobility; it was defensive in that it protected soldiers and their weapons as they advanced into the enemy's territory. The British employed their tanks, as the Germans their gas, timidly and experimentally in the beginning. The wholesale use of tanks at the Somme in 1916 would have won the war. The munition makers, in the two years between the Somme and the Armistice, somewhat improved this new weapon. The early types could advance only four or five miles an hour over ordinary rough ground—just the pace of a man at a brisk walk. The improved types could make ten or twelve miles an hour—practically, the speed of cavalry in

action. The tanks of the Somme carried merely machine-guns. Many of those used in the Battle of Liberation were armed with standard-calibre field-guns. Practically, there is no limit to the possible size of tanks. Munitions designers are preparing to build them bigger and bigger, just as naval designers have built warships bigger and bigger—from two hundred-ton caravels which fought the Armada to the 20,000-ton dreadnought. The "land battleship" will doubtless grow in bulk until expense sets a limit. And now, military experts are considering a new possibility of tanks. If a submarine warship may be rendered water-tight, so may a tank be rendered gas-tight.

Poison gas, as I have repeated even to weariness, seems to be the killing weapon of the future. However, the explosive shell is by no means out of date. It merely becomes more or less of an auxiliary to gas. Gas cannot batter down intrenchments and fortifications, destroy buildings, puncture masks or air-proof tanks and fortresses. The explosive shell will still blast the way; the gas will for the most part do the actual job of killing. Explosive-projecting artillery will either be encased in tanks or, when it takes the open, generally mounted on the caterpillar wheel, which gives it far greater mobility, even over rough country, than the swiftest horse-drawn artillery. Designers of tanks and modern gun-carriages are of course studying to increase their speed. We may reasonably expect that even the heavy artil-

lery will be able, by "the next war," to go twenty or twenty-five miles an hour. Hitherto, armies have needed roads in order to advance. But the caterpillar wheel makes artillery comparatively independent of highways.

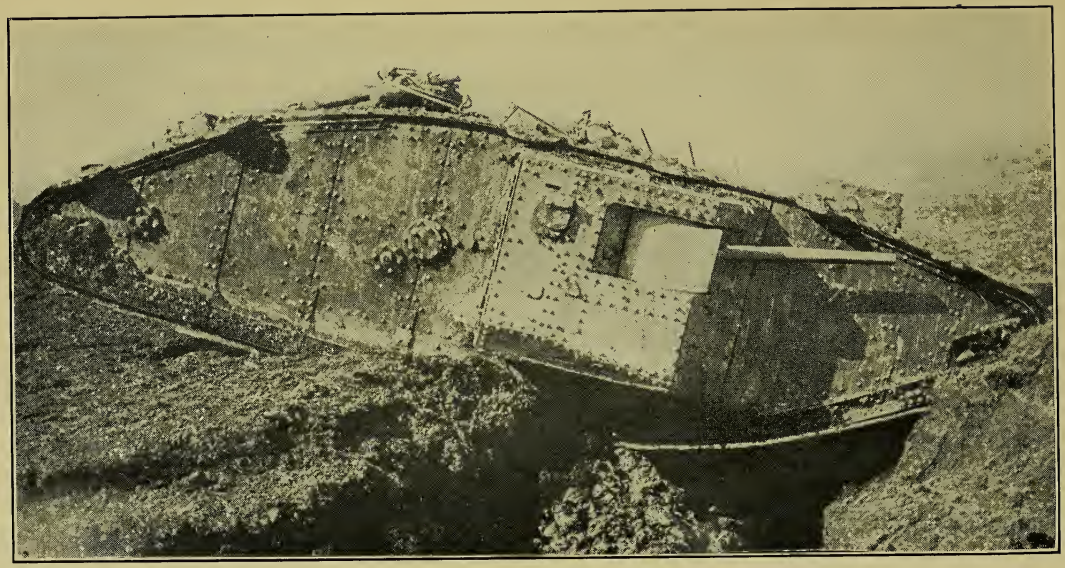
These, then, will probably be the tactics of the next war on land, provided that we make no great basic discovery in the art of killing, but only improve up to their best possibilities the instruments we have and know. The better to imagine the scene, let us repeat the situation of the last war, and imagine a thoroughly-prepared Germany attacking and trying to invade a thoroughly-prepared France.

The attackers will probably dispense with a declaration of hostilities, following the precedent established by the Japanese in their war against Russia. "Wars will no longer be declared," says the Colonel Fuller so often quoted above, "but like a tropical tornado there will be a darkening of the sky, and then the flood. To dally over the declaration will be considered as foolish as a Fontenoy courtesy—a wave of a plumed hat—'Gentlemen of France, fire first!' " Germany will start from her frontier an army of tanks, big and little, gas-proof, their guns provided with gas shells to kill, with explosive shells to open the way for killing. They will be backed by the heavy artillery on caterpillar trucks. The French will probably have a defence ready for this form of attack. Across their frontiers will stretch a line of retorts capable of setting up a lethal cloud four

hundred miles long—"from Switzerland to the sea." At the burst of hostilities, the French will loosen this defence; if it works perfectly, they will have leisure to mobilize. The Germans may elect to advance their force of gas-proof tanks through this cloud; they may wait for it to dissipate; they may have means to drive "alleys of immunity" through it, and so permit the passage of their forces. What method they try depends largely on the future of infantry; and that is still a moot point.

Certain optimistic soldiers have registered the belief that the dense masses of infantry, which have been the backbone of all previous modern wars, will disappear from the new warfare. Tanks, the cavalry of the future, will win and lose battles. It will be impossible for any nation to manufacture enough tanks to contain its whole mobilizable force; there is not so much steel-making capacity in the world. Therefore, we shall come down again to comparatively small professional armies of experts.

Most soldiers with whom I have talked do not endorse this view. They think that nothing will ever wholly displace infantry. Artillery was king of battles in the late war; all national resources were bent toward making guns and still more guns, shells and still more shells. Yet the masses of infantry remained; the General Staffs were shrieking not only for more guns, but for more men. You wage war to occupy positions and territory; nothing can finally seize and hold positions and territory but great



A LAND DREADNOUGHT

One of the large tanks used by the British Army at the end of the war, illustrating how the caterpillar wheel makes this moving fortress independent of roads. It mounts two field guns. If armament keeps up, such tanks will soon seem as obsolete as the caravels of the Armada.

bodies of armed men. These soldiers to whom I have talked believe that this old, basic rule of warfare will not change in the next war, any more than it changed in the late war. The infantryman may, however, abandon his rifle, and carry instead the shorter-ranged but far more deadly gas-grenade—though even the passing of the rifle, in its multiplied form of the machine-gun, seems doubtful.

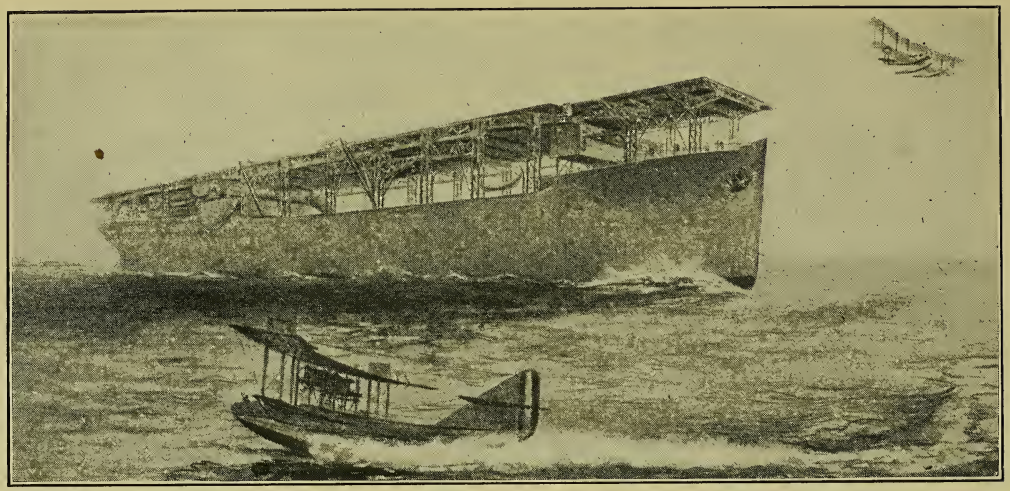
There is some question whether these masses of infantry will come directly to grips with each other. But that does not mean that they will not be killed "by wholesale, not by retail." They may be held back until the machines of war have stamped out resistance, and then brought up merely to hold the territory; but they will be constantly under attack from the air.

For even before the tank-army starts toward that belt of lethal mist which marks the frontier, the air-fleets will be on their way. I have shown how unmanned aeroplanes may be directed by wireless, and so become projectiles of unimagined range and calibre. Such fleets, and other aircraft armed with machine-guns, high explosive bombs, gas-bombs, will search out the masses of waiting infantry. The defenders will fight these fleets with their own aeroplanes; while the tanks are waging war on solid land, the aircraft will be engaged in a wholesale version of the retail air-holocausts which we knew in the late war. Whenever squadrons of these attacking aeroplanes get through to their objective,

whether bodies of soldiers or towns, they may make even the slaughter of Verdun seem by comparison like bow-and-arrow warfare.

Such a war, probably, would not last long. That is not a certainty, however. One can imagine a drawn first attack; a situation where after incredible slaughter and destruction on both sides, the belligerents would settle down to a war of gas on the frontiers and of aeroplane raids on the towns, while each side strove to manufacture enough munitions for a decisive victory. However, even a war of a few weeks or months would be enough. It would probably roll up at least as large a score of killed and maimed soldiers, of property destruction, as the late war of unblessed memory. It would probably kill many more civilians.

What of the defence—less importantly against air-bombs loaded with tons of explosive, more importantly against poison gas? Now, you must defend not only armies but citizens of towns, not only soldiers but the weakest girl baby. Usually, when a new weapon is introduced into warfare, some time passes before men invent an adequate defence. The knife, carried in the hand or mounted on a shaft, dates from prehistoric times; we were well advanced into historic times before body armor became good enough to turn the edge of a knife. The best defence against gun-fire—burrowing in the earth—though long known, was not fully worked out and universally applied until the late war. The mask



PROPOSED AIRCRAFT CARRIER

Estimated to cost $26,000,000

The amount of money two such ships will cost would provide an increase of $800 per year for five years in the salaries of 13,000 school teachers.

It is possible we shall have to do without properly paid teachers in order to prepare adequately for the next war.

formed a pretty good defence against the first poison gases; its difficulties and imperfections I have mentioned before. But the German mustard gas, the American Lewisite gas, attacks the skin, the one producing bad burns, the other fatally poisoning the system. To protect the individual against such attack there are envisaged at present two methods. The skin of the whole body may be greased with an ointment containing an antidote for the poison. The British were preparing, when the Armistice came, to adopt this defence for their armies against German mustard gas. But this was recognized as an imperfect defence. After your greased troops have for a few hours wallowed in the trenches or endured a rainstorm on the march, the ointment is rubbed off or washed off in patches. Better, if it could be done, would be a protective, chemically-treated suit with gloves and headpiece, perfectly fitting to the mask—in other words, a mask extended to cover the whole body. This may be tried, for armies. After all, they must have uniforms. Finally comes the method of sending the advanced forces to action enclosed in gas-proof tanks.

But when you consider these methods of defence for civilian populations, you encounter special difficulties. In the next European war, shall we have all the inhabitants of Paris living in a coating of protective ointment, the mask ready to hand? Every line officer knows how hard it was to make disciplined soldiers keep on their masks in time of danger.

To make civilians keep themselves greased, to make them assume their masks promptly and intelligently in the event of a general killing raid over London or Paris, we should have to render universal military training really universal, and begin it not in the schools but in the cradle. The same objection—with expense in addition—would apply to the provision of "anti-gas" suits for all civilians in the great cities.

The gas-proof tank, a military improvement now virtually accomplished, points the way to the perfect defence. Colonel Fuller imagines "centres of defence"—fortresses, or something like them, rendered gas-tight, wherein you may keep your reserve forces, to which your tanks will return for repairs and replenishment of supplies. We can reconstruct our great cities so as to furnish for our civilians "centres of defence." That was done imperfectly in the late war, when in constantly-raided towns such as Venice the authorities banked the deep cellars with sandbags, thus turning them into dug-outs like those used by the troops. However, cellars will never form a defence against sinking, lethal, cell-killing gas like Lewisite and its probable successors. The shelters must be large enough to accommodate the people of a whole city; they must be deep enough in the ground to resist the enormous explosive power of the great, new bombs; they must be gas-proofed, either by rendering them air-tight and furnishing oxygen to keep the inmates alive, or by providing ventilators

which make the outer air pass through an antidote. They must be as easily accessible as a subway—even more accessible. This virtually involves rebuilding modern cities, if the inhabitants expect to survive a war. It is absurd, of course.

Unless some General Staff in Europe is hugging a deep and sinister secret, we have not yet found the killing ray. That lies beyond the present frontiers of science; its discovery involves pioneer work. If it comes, it may change and intensify warfare in many ways which we cannot at present conceive. But warfare by disease-bearing bacilli is already preparing in the laboratories. Here, for example, is one method which I have heard suggested and which, I learn from men of science, seems quite possible: Find some rather rare disease, preferably one which flourishes in a far corner of the world, so that people of your own region have no natural immunity against it, just as the American Indians have no immunity against measles. Experiment until you find a good, practical serum which may be manufactured on a wholesale scale. Cultivate the bacilli until they are strengthened to that malignant stage with which the recent influenza epidemic made us familiar—that can be done with some species of bacilli. Innoculate your own army; if necessary your own civilian population. Then by night-flying aeroplanes, by spies, by infected insects, vermin or water, by any other means which ingenuity may suggest, scatter the germs among the enemy forces. In a

few days, you will have a sick enemy, easily conquered. It takes time to discover a specific or a serum for a new disease. The mischief would be done long before the laboratories of the enemy could find a defence for this especially romantic and valorous form of battle. As germ warfare is at present conceived, it would be directed against armies alone. But any one who followed the late war knows what human chains bind the troops in the trenches to the general population. With almost every one ministering in some capacity to the army, soldiers and civilians are inextricably mixed. Armies simply could not be quarantined. Among the possibilities of the next war is a general, blighting epidemic, like the Black Plagues of the Middle Ages—a sudden, mysterious, undiscriminating rush of death from which a man can save himself only by fleeing his fellow man.

Then—there are easily cultivated, easily spread, diseases of plants. What about a rust which will ruin your enemy's grain crop and starve him out? That method of warfare has been suggested and is now being investigated.

So much for the direct effect of the next land war upon human life, and especially upon civilian life. Before I leave the subject, however, I must go into naval operations, of which I have hitherto omitted mention. The submarine, in the hands of the Ger-

mans, proved its distinct value. Many naval men say that the Germans made the same mistake with their submarines that they did with their gases, and that the British did with their tanks. They did not realize the power in their hands. Had they begun the war with as many submarines as they manned in 1917, had they stuck from first to last to their policy of sinking without warning, they might have starved out England and won. The submarine grew mightily in speed, in cruising radius, in offensive power. The German U-boats of 1914 were as slow as a tub freighter; they could make only short dashes from their bases; they depended almost entirely on their torpedoes. Those of 1918 were almost as fast on the surface as an old-fashioned battleship, they proved that they could cross and recross the Atlantic on their own supplies of fuel, they mounted long-range five- and six-inch guns. That much greater improvement is possible, all naval designers agree. Certain naval architects hold that virtually all warships of the future will be capable of diving and traveling concealed under water—the submersible dreadnought. I shall not go into the present controversy between the experts who would stick to the surface dreadnought and those who believe in scrapping fleets and designing only submersibles. I, the landman, will not presume to judge between nautical experts. But I notice that those who adhere to the theory of surface fleets

qualify their statements with—"for the present." They seem to believe that it will come to submarines or submersibles in the end.

We all know from the expression of the late war how perfectly the ocean protects submarines. Germans have told me since the Armistice that at no time did the Imperial Navy have more than fifty of these craft cruising at once; usually there were only about twenty-five. Against them, the Allies were using at least half of their naval resources; thousands of craft, from giant dreadnoughts to swift little chasers, mobilized to fight imperfectly less than fifty of these deep-sea assassins! You can attack them with other naval vessels only from the surface. That "submarine cannot fight submarine" is a naval axiom. In the next war, a few hundred submersibles of the new, swift, powerful type could almost undoubtedly accomplish what Germany failed to accomplish in 1917 and 1918—establish an effective food-blockade of England or of any other region dependent upon overseas importation for its bread and meat.

And whoever starts such a campaign will unquestionably heed the plea of "national necessity" as did Germany in 1917-1918: abrogate the old sea-law which compelled attackers to warn ships about to be sunk, and strike out of the darkness and the sea-depths. For the lid is off.

So we may add to the possible death-cost in the

next war not only malnutrition but actual starvation "by wholesale."

Remember those Danish statistics. Ten million soldiers in arms died in the last war; and thirty million others "who might be living today" are not living. War on civilians was not yet a generally acknowledged fact; it was only a practical result. In the next war, it will be an acknowledged fact. The civilian population, I repeat once for all, will be an objective of military necessity—fair game.

It would not be, could not be, if we fought only with the old, primitive weapons, saw with our own eyes the effect of our blows. During the invasion of Belgium, a friend of mine stood beside a German private playing with a little Belgian girl. "Our discipline is perfect," said the officer. "You see that soldier. He likes that child. He has toward her humane sentiments. Yet if I ordered him to run his bayonet through her, he would obey without an instant's hesitation." Now personally, I doubt that. The man in question might have obeyed; I do not believe that the average German soldier would have obeyed—slightly brutalized though he was by "the system." There were German atrocities in Belgium —I can testify personally to that—but they did not happen in that way. Contrary to a rumor widely circulated and believed by many Americans as gospel, the Germans did not cut off children's hands.

But the new warfare takes advantage of the limits of human imagination. If you bayonet a child, you see the spurt of blood, the curling up of the little body, the look in the eyes. . . . But if you loose a bomb on a town, you see only that you have made a fair hit. Time and again I have dined with French boy-aviators, British boy-aviators, American boy-aviators, home from raids. They were gallant, generous, kindly youths. And they were thinking and talking not of the effects of their bombs but only of "the hit." If now and then a spurt of vision shot into their minds, they closed their imagination—as one must do in war.

CHAPTER VI

WAR AND THE RACE

So much for civilians. Now let us turn our imaginations again upon those ten million soldiers dead in the last war, and the unestimated millions in the next. Let us forget the obvious; let me forget it who have seen war—the gray-green streak down Douaumont Ravine where lay tens of thousands of German dead, the rib-bones sticking everywhere out of Vimy Ridge, the wave of moaning from the three thousand wounded and dying in the Casino Hospital at Boulogne. Let us remember that all men must die, and consider the thing cold-bloodedly from the standpoint of the particular race which draws the sword, and of the whole human species. We shall find, then, that the chief loss of the late war was not the hundreds of billions of dollars of property value destroyed, nor yet the thirty million civilians "who might be living today," but the ten million soldiers.

From the pacifist literature which preceded our entrance into the European War, three books stand out in memory. Jean Bloch, a Pole, maintained that war could not be; the horrors of modern warfare

were so great that men would not long face them. Events discredited Bloch; we found unexpected reservoirs of valor in the human spirit. Every week, along the great line, bodies of men performed acts of sacrifice which made Thermopylæ, the Alamo and the Charge of the Light Brigade seem poor and spiritless. Normal Angell, writing from the economic viewpoint, predicted not that war could not be, but that it would not pay; the victor would lose as well as the vanquished. Events so far have tended to vindicate Norman Angell's view; perhaps the next ten years may vindicate him entirely. The third work, less known than the others, came out of Armageddon unshaken. It is Dr. David Starr Jordan's "War and the Breed."

Jordan is an evolutionist, and looks at all society from the viewpoint of the so-called Darwinian theory. The reader may belong to a sect or a scientific creed which rejects evolution. But he need not be a Darwinian to accept Jordan's argument. He need only believe—I assume every one does—that the characteristics of ancestors are transmitted to their offspring, that strong men and women breed strong descendants, that weak men and women breed weak descendants. And Jordan maintained that a general war, fought by conscript armies under modern conditions, would set back the quality of races for centuries—that it would be a gigantic accomplishment in reverse breeding.

This is how it works: if you are a grower of live-

stock, trying to produce the champion horse or cow, you select from your colts or calves the finest specimens, and breed them; the others you slaughter or sterilize. The average cow new-caught by the barbarians from the wild herds of the European steppes probably gave only a gallon or so of milk a day. We have cows which give their dozen gallons of milk a day; and they have been evolved from the wild steppe-cow by nothing else than this long process of selective breeding. Now if it were an object to do so, breeders could take their herds of big, strong, twelve-gallon Holsteins and breed them back to the scrubby little one-gallon-cow. They need simply to reverse the process—make it impossible for the fine specimens to breed, and produce their calves, generation after generation, from the scrubs.

Modern war—conscription plus increased killing power—does exactly this with the males of the human species. You introduce universal service. Every young man, usually at the age of twenty, is drafted into the standing army for a service of two or three years. Gathered in the barracks, these conscripts are examined. Those not fit for military service, on mental and physical tests, are thrown out—in other words, the deformed, the half-witted or underbrained, the narrow-chested, the abnormally weak-muscled, the tuberculous—the culls of the breed. These culls are free to go their way, to marry if they wish, to become fathers. The rest are generally forbidden to marry until they have performed their

term of "first line" military service. Scientifically these men are selected as the flower of the nation. The term of first-line service completed, the young man at the age of twenty-two or twenty-three goes into the first reserve. He must take part annually in certain manœuvers; otherwise he is free to work and to marry. At the age of twenty-six, twenty-eight or thereabouts, he is passed on to the second reserve. At about thirty-five, he becomes a "territorial" and remains in that classification until he is about forty-five, when his military duty is supposed to be done.

"Fighting age is athletic age," say British soldiers. I do not have to tell Americans, a sporting people, that the best days of the average athlete, especially in sports like boxing or football which require intense effort and physical courage, come in the early twenties. Those first-line troops are the best troops.

Moreover, they are under arms when war breaks; they do not have to be gathered together, redrilled and rediciplined. So they go first into battle; lead all the early attacks; form generally the advanced forces all through. The second line, almost equally valuable, almost as much used, consists of men in the first reserve; and so on, until we get down to the territorials, the men between their late thirties and their middle forties. Theoretically, these "old" men are not supposed to get into action at all except when the necessity grows desperate. They

guard roads and bridges, dig reserve trenches, garrison captured territory, perform the hundred and one varieties of labor which an army requires behind its line.

When all the statistics of the war are compiled and classified, their graphic chart will look like a pyramid. They will show that the losses bore by far the heaviest on the ages between twenty and twenty-five; they shaded off until in the ages between forty and forty-nine they became almost negligible. *

Here is reverse breeding on a wholesale, intensive scale. The young, unmarried men go first to be killed; are most numerously killed through the whole war. They are the select stock of their generation; and practically, not one has fathered a child. Their blood is wholly lost to the race. Next come the men in their middle twenties. Some of them have married since they left the first line, and some have not. It is doubtful if they average more than one child apiece when their turn comes to die. So it goes on, class by class; smaller losses and more children, until we come to the Territorials of forty-five. In that category, the losses of life are proportionately very small, and if we study vital statistics, we find that men of this age have had about all the children they are going to have. But all this time

* Forty-five years was the usual limit of military service; though for a few months during 1918, the British stretched conscription to fifty. But many French and German Territorials who entered the war aged forty-five, were kept in the army until the end; and were therefore forty-nine in the year of the armistice.

the culls of whatever age, the men exempted because they are below standard, are living out their lives and fathering children.

In our own draft, we proceeded on the European plan, calling to arms the men between twenty-one and thirty, and generally exempting the married. That age was set largely to get the men of best fighting age—"athletic age." But we were moved by another consideration, which showed itself in the exemption of married men. We wished to minimize human grief and human hardship. If an unmarried boy of twenty is killed there are only his immediate blood-family to mourn him. A married man of thirty-five has in addition a wife and children. Moreover, if he goes to the war in the ranks, he must leave his wife and children virtually to shift for themselves. Great Britain recognized the same principles when, in her advance to universal conscription, she took the young before the old, the unmarried before the married.

Humane and beautiful as well as expedient, all this; yet from the racial point of view, unscientific even to immorality. Better, far better, would it be to begin at the other end of the scale, mobilizing for first-line troops the men between seventy and sixty, for the second-line those between sixty and fifty, for Territorials those between fifty and forty-five. With these old men the race, as such, has little concern. They have mostly fathered their children, done their duty to the strain.

Nature does not care in the least what becomes of the plant after it has produced its seed and the new crop is growing. If, allowing war, we were conducting it scientifically for the best interests of the race, the slogan of conscription would be not "single men first" but "grandfathers first." Of course, this is ridiculous. But it seems to me that whenever we carry out any aspect of modern war to its logical conclusion, we arrive at the ridiculous.

The older wars of modern times were not conducted by conscription, as we know it now. The rank and file, as far as we can read the records, consisted very largely of the dregs of the population who had been forced into the army by press gangs. There was a sprinkling, however, of young, vigorous youths who went to war for the adventure; there were organized bodies of soldiers of fortune who hired out as mercenaries, and who must needs be sound physically. Occasionally, too, we find a body of sturdy peasantry like the English yeomen who followed the lords of the land to war. There was, however, no selective conscription, no careful medical examination to reject the culls of the blood and send the best to slaughter, usually no rule of "single men first." Even at that, the breeding-stock killed in the old wars was probably superior to the average level of the race and species. Jordan believes that he can trace a kind of rhythm in the history of "dominant nations." The war-like race, continuously engaged in battle, reaches a point where

it begins to go decadent, to find its force sapped. Spain, lord of the world up to the seventeenth century, holding her power by means of the famous Spanish infantry, "the wall which repaired its own breaches," suddenly faded away until by the nineteenth century she was the football of Europe. But the off-hand recruiting systems of those old days could not possibly hit the breed as hard as our modern method of scientific conscription. Just as technically-improved war has worked toward greater and greater property-destruction, so has it worked toward greater and greater race-destruction.*

The thirty million civilians deprived of life by Armageddon probably struck about the average level of the breed. Those who died of starvation or exhaustion in the great treks before the advancing hordes of the late war were below that average. These flights were primitive struggles for existence, wherein the weakest died first. Without quite the same certainty, we may say that those who died of malnutrition and the epidemics directly engendered by war were somewhat below average. That—to be perfectly cold-blooded—was a gain to the race. But the unborn—for the most part they never came into this world because their po-

* Jordan's militaristic opponents asked once for facts to support his theory. This caused Dr. Vernon Kellogg to investigate the old French records. He found that in the generation following the Napoleonic wars, the standard of height and weight for French recruits had greatly to be lowered by the military authorities. More significantly, he found the percentage of men rejected for physical unfitness greatly increased.

tential fathers were away in the trenches or dead. Those fathers were the flower of Europe, physically and mentally; meantime, the weaklings, rejected by the recruiting offices, remained at home, breeding their vitiated blood into the strain. That was a loss to the race. Probably these items just about balance one another, and we get in the civilian losses an average of the mental and physical strength of the European breed.

In the ten million soldiers lies the dead loss. Take France, who suffered most heavily of all. She had nearly a million and three-quarters men killed in action, died of wounds and "missing in action." But that does not tell the whole story. Of her young soldiers between nineteen and thirty-one years of age, about sixty per cent died in the war. While statistics are not yet compiled on this special point, it is doubtful if this glorious young company left nearly so much as an average of one child apiece. In the absolute, Germany lost more heavily, in the relative less heavily; she counts two million killed or missing in action or dead of wounds. And if we should hand over the human race to a breeder, to improve by the same methods he uses to improve a breed of horses, these are precisely the million and a half or two millions whom he would have chosen from the men of France and Germany for his purpose.

This reduction of the strength in the European breed through the selective conscription system, plus

war by machinery, is one of those situations which one can prophesy in advance with mathematical accuracy. The vital statistics of the young and adolescent in the years between 1918 and 1938, compared with those between 1894 and 1914, are going to prove the point in cold figures.

So far, wars in general have struck at the strength of the male strain alone. However much the women have been massacred, there has been no scientific selection in the choice of victims. The strength of woman has been left to war-depleted nations to renew their blood. But in the next war we shall probably do away with that archaic check on the purpose of the great god Mars. Women, as I have already shown, have proved their value for indirect military purposes, and so put themselves within the circle of destruction. Already, the general staffs of Europe are saying that the recruiting of women in the late war was irregular, hit-and-miss, wasteful. In a struggle between national resources as well as national armies, it would be far more efficient and economical to mobilize them all and select the war-workers by scientific methods, according to national convenience and necessity. All of which is true and logical. And if women are put under conscription for munitions work, for ambulance and truck driving, for the thousand and one varieties of light labor which they can perform in the rear areas of an army zone, we must proceed by the same methods which we use in selective conscription of the male ele-

ment. We shall, first of all, spare the mothers, the women who have already given their strain to the breed. They are needed in their homes for the vital business of rearing children. We shall take the young unmarried women, and choose from them by scientific test the strongest and most brilliant, rejecting the weakest and most stupid. That process was begun in the late war. The best managed munitions works gave no woman a job until medical and psychological tests proved that she had the body and brains for the work. Just as with the men, we shall send the culls back to civilian life, free to pour their inferior blood into the veins of the new generation.

In the late war, a few thousands of these superior women, chosen from among the volunteers for munitions workers and for transport drivers in the army zone, died through air raids and long-distance artillery fire. These losses were not great enough to have much effect on the breed. But they pointed the way we are going. In the next war, with its overwhelming air raids, its gases blotting out life over square miles, its bacilli, possibly its rays, munitions works and the services of the rear will be special objects of attack. There, as at the front, we shall kill by wholesale not by retail, and we shall kill our selected female breeding stock. So to the anti-social effects of the next war we must add one never accomplished before in human history: the sapping of the feminine strength in the human race, as war—even before that great reversal of selective breed-

ing which was Armageddon—seems usually to have sapped the masculine strength.

The extreme militarist declares that the highest civic duty of man is the advancement of the power and glory of his race or nation; nothing else really counts. He is confounded out of his own mouth. In the long story of races, what doth it profit a nation if during two or three generations she rules a world-circling empire as Spain did in the seventeenth century, and then sinks back exhausted and impotent as Spain did in the nineteenth? Does that make for the power and glory of the race? Yet biologic law seems to ordain that the sharp sword of the war-like nation cuts both ways; and when we intensify nature with modern science, the matter gets beyond seeming. In the idea that by war he advances the power and the ultimate glory of his race, the militarist is again mistaking appearances for reality.

CHAPTER VII

THE COST IN MONEY

So far, we have discussed mostly the direct effects of war—the last and the next—on human life. The loss of that accumulated wealth of the world which is property touches human life indirectly in a thousand ways, and is therefore of more than secondary importance. And here, we run into bewildering perplexities. What in the arbitrary terms of money the late war cost the European peoples, we already know. We know also approximately what it cost in out-and-out destruction of houses, fields, factories, mines and railroads by bombardment and conflagration. But the shrewdest economist cannot guess the final cost. It is not enough to compile the national debt, so great as to lie beyond the imagination of the average man. Those debts cannot all be paid; in some manner or other, many of them will be repudiated. The true economic loss, which cannot be repudiated, lies in the disturbance of that delicate machine of manufacture and trade by which modern industrial nations lived and worked before the great war. We see that loss every day in the absurd conditions of the third year after the Armistice. There

are three factors to industrial production—labor, machinery and raw materials. In Germany are nearly three million cotton operatives, as expert as any in the world. Standing ready to their hands is a full equipment of the most modern machinery. Half of the cotton operatives of Germany are living in idleness and semi-starvation for lack of raw material. We raise the raw material in the South of the United States—and our southern farmers are in financial difficulties this winter because they have no market for their cotton!

It was agreed in the Versailles treaty that Germany should furnish to France the equivalent of the coal-production destroyed when the Lille and Valenciennes mines were flooded. Germany has nearly fulfilled at least that clause of the treaty. At this moment (January, 1921) German coal in enormous quantities lies piled up on sidings of France, unused. France has the expert operatives; except in the devastated North, she has her intact machinery; she has a great job of building to do, and that involves steel, which is made with coal. But she cannot use that German coal just now, because a combination of adverse exchange, undermined credits and shaken confidence keeps her working men from their machines. There is in Poland and Austria that same combination of strong men and good machines, ready to work for their daily bread. But the men are starving because they have no work by which to earn food; and at the same time our farmers and

those of the Argentine are complaining that they have slack markets for their food-products.

What shrewd observers expect of the next few years in Europe may be seen in the present policy of the British Labor Party. Rightly or wrongly, the party leaders believe that they can take over the power in England. But they say frankly that they do not intend to do it now, because the next four or five years will bring such economic consequences of the late war as to swamp and discredit the faction in power. They prefer to let the "old crowd" take the onus. Possibly, the heaviest costs of the late war are still to come.

Nor can we reckon the economic losses of Armageddon without counting in the past—the thirty or forty years of intensive preparation which preceded the explosion of 1914. During that period, when chancellories kept the peace by the old-fashioned system of checks and balances, Europe was traditionally an armed camp. Economically, it was in a state of perpetual warfare. National wealth grew in this period, but national expenditure on armies and navies grew faster. In France, which for various reasons we may study most easily, the military and naval budget increased from fifteen to twenty per cent during each decade; and the indirect appropriations for the army, as for example in the item of strategic railways, even faster. Directly and indirectly, she was by 1905, ten years before the great war, spending between two hundred and ten and two

hundred and twenty-five million dollars annually on her army and navy. At the same time, she was paying about a hundred and fifty millions annually in interest on the debts of old wars—she was still financing the campaigns of the two Napoleons. Such figures mean nothing to the average mind; but here is a basis of comparison. France is strongly centralized. Most of her popular education is financed not by the city or county as with us, but by the national government. And in the years when it was paying more than two hundred millions for the next war, a hundred and fifty millions for old wars, the national government spent on education about forty-six millions.

Now this was almost dead economic loss. In the ordinary processes of industry, part of the receipts at least are going to increase the world's wealth. Take for example the ultimate destiny of a dollar paid into the cotton manufacturing business. Most of it buys someone bread and meat and shelter and clothing. But just so many cents or mills of that dollar buy factories, machinery, swifter transportation—something which will make more wealth and still more wealth. It is like a crop of which the greater part is eaten, the lesser part kept for seed. The money spent on armies and navies in no wise increases the world's real wealth, even when the shells merely lie and disintegrate in the magazines, the guns grow old-fashioned in the barracks. And when

they are used, of course they are actively destroying wealth.

The war came; and it was possible under the urge of national necessity to increase taxation. All did, some more, some less. England crowded on the taxes until the man of an average middle-class income was paying before the end some forty per cent of his income. Germany and France paid less heavily at the time. Each was calculating on victory, and on making the loser pay. France won; and already she realizes that she cannot begin to reimburse herself, even though she milks from Germany her last mark. And Germany the loser—expression fails in the face of her predicament.

But tax as they might, the nations had at once to begin drawing on their future, asking for unprecedented loans both from their own people and from foreigners. Debts piled up beyond imagination.

Let me set down a few figures. They will not mean much to the reader, I suppose, any more than they mean much to the writer; they are too overwhelmingly big. In actual money, paid out over the counter, virtually all taken from the world's accumulated wealth, the war cost one hundred and eighty-six billion dollars. If you add the indirect cost such as destruction of property, loss of production and the capitalized value of the human lives, the sum reaches three hundred and thirty-seven billion dollars. The national debts of Great Britain

rose from three and a half billions to thirty-nine billions; of France from six and a third billions to forty-six billions; of the United States from one billion to nearly twenty-five billions.

By certain comparisons, we may arrive at an understanding of these figures. Again I will take France as the best example at hand. Her total national wealth—farms, mines, factories, buildings, railroads, canals, everything she owns—was estimated in 1920 at ninety-two and a half billion dollars. Her debt, as I have said, is forty-six billion dollars—almost exactly half her total wealth. That wealth was her heritage. When the first Gaul, long before Julius Cæsar came, cleared land on the borders of the Seine, he was creating national wealth for the France of 1920. It had been accumulating for more than twenty centuries. Now we will say that you own a factory worth, at current market rates, something like one hundred thousand dollars. There comes a period of unprecedented hard times, in the midst of which you have a fire which—since you carry no insurance—destroys the value of a part of your plant. You find that your business is worth ninety-two thousand and five hundred dollars; and that you have been forced to put upon it a mortgage of forty-six thousand dollars. Then you face another period of hard times, with money tight, markets poor, raw materials hard to get. That, in terms of business, is the situation of France. Great Britain is only a little less affected. Her national

National Debts of
United States, Great Britain & France
in 1913 and in 1920.
1,028 MILLIONS
24,974 MILLIONS
3,485 MILLIONS
39,314 MILLIONS
6,346 MILLIONS
46,025 MILLIONS
1913
1920
UNITED STATES
1913
1920
GREAT BRITAIN
1913
1920
FRANCE

wealth is one hundred and twenty billions; her debt is nearly forty billions. So it goes, in greater or less degree, with Germany, Italy, the Austrian states, the Balkan states. This apart from the actual physical destruction of property.

There again we run into incomprehensible figures. I have spoken already of the growing disproportion between the cost of the cannon and its charge on the one hand and the destruction which it can accomplish on the other. Of that, Northern France stands as the living proof. France lost the most heavily in property, as she did in life. Proportionately to her population and wealth, Belgium's loss is only a little less; among the greater nations, Italy stands next. Physical destruction of property was very unevenly distributed. But it all comes out of the wealth of the world; and so interlocked are the activities of modern nations that you cannot destroy any considerable body of wealth in one region without causing disturbances in others.

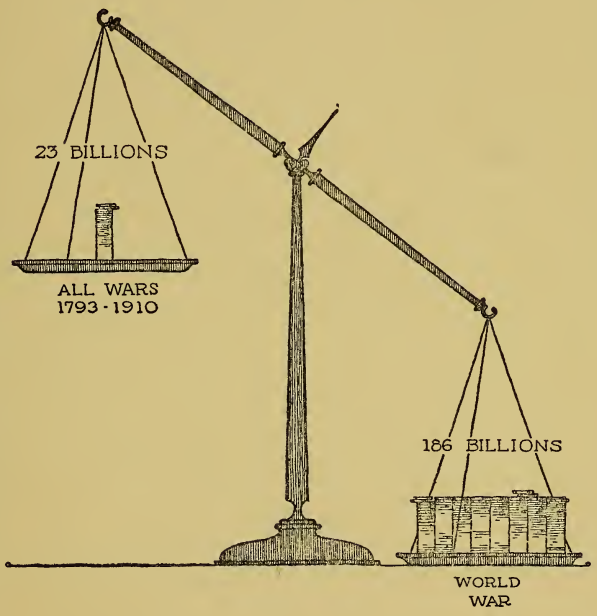
Let us abandon abstract figures and make this the basis of comparison: In 1906, the city of San Francisco was partially destroyed by earthquake and fire. A year or so later, we had a brief financial depression; there were lesser depressions in England and Germany, where insurance companies had been hard hit. And many economists said that it was all due to the loss of wealth and the disturbance of conditions caused by the San Francisco disaster.

In Northern France, about as many buildings

were destroyed—omitting those merely damaged—as there are in Greater New York; and New York has twelve or thirteen times the population of San Francisco at the time of the disaster. The region of San Francisco lost no canals, railroads, or improved highways. She was not a manufacturing city; and such factories as she had mostly escaped. But France did lose factories, canals, railways, highways in her most thickly populated country—a belt four hundred miles long, from five miles wide in Alsace to fifty miles wide north and west of Noyon. In the region merely invaded, about Lille, she lost enormous values in machines turned into scrap-iron, and eventually into shells, by the conquerers. The disaster of 1906 destroyed no agricultural land. France lost to agriculture, for at least a generation, from four to five hundred thousand acres—land with its top-soil blown to the winds, or ground into the clay subsoil. Roughly, I estimate that the destruction of visible, physical property in Northern France—to say nothing of Belgium, Italy, Serbia, Greece and East Prussia—was equivalent to twenty or twenty-five San Francisco disasters. Leaving out the direct property loss of other nations, the orgy of spending during four and a quarter years, the incredible national debts and their interest, this belt of destruction in France alone would almost account for the present disturbances of conditions in the whole world.

The war-bill of nations in peace times consists of

Cost of World War compared with Cost of All Wars from 1793 (beginning of Napoleonic Wars) to 1910



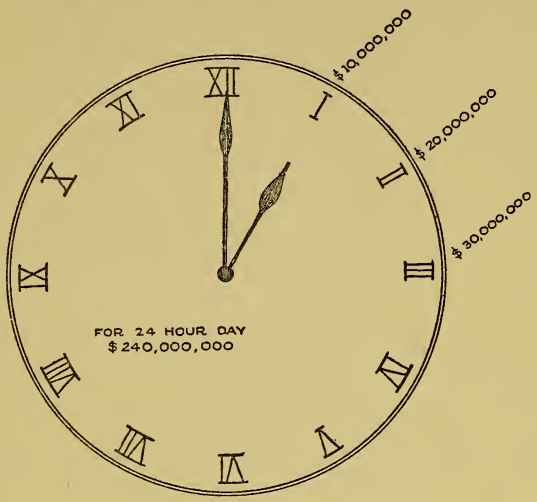
interest on the national debt, caused by old wars, plus the direct cost of supporting armament. Still using France as an example; if she spends as much on her army and navy in the period between 1920 and 1930 even as she did in the period between 1900 and 1910, her war-bill will be multiplied by about three and a half. She may get a certain amount of German indemnity. That, probably, will not be enough to restore her North and to finance her pensions; it will not go toward lightening the taxes which pay the war-bill. France, like the other European nations, was taxed in 1914 to the point of absurdity; now, she must eventually multiply the taxes by three or four. Even this calculation does not involve a sinking-fund to pay off the debt. Fifty years from now, possibly a hundred years, France will still be paying the bill of 1914-18. And this is true not only of France, but of all the other nations who fought through the great war. In hardship, toil, reduced standard of living, the next two generations will pay—or else—this is still possible—European civilization will tumble into the gulf of anarchy. H. G. Wells said to the writer, a month after the war began, "All our lives we shall be talking of the good, old days of 1913." That war-prophecy is being fulfilled.

Let us now bring the subject home. We, of all, lost the least in property as in men. We had, indeed, profited greatly in the two years and a half of our neutrality. We held, by the end of that

period, almost half of the gold in the world. Of course, we poured all that prosperity and much more into the last two years of the world war. We multiplied our national debt by twenty-four. We are beginning for the first time to know what taxation really means. We grumble at the heavy income tax; yet if we are to meet our obligations, it must continue at something like its present scale for the lifetime of this generation. Fifty years from now, we may still be paying. We experienced during the two years following November, 1918, an era of hectic prosperity—followed by a collapse, in which we are learning that war-gold is fool's gold. All things considered, we came as near as anyone to winning Armageddon. But everyone loses a modern war, the victors along with the vanquished; economically, we too lost.

Before we entered the great war, we were called a pacifist people and as such were the scorn of European militarists. Indeed, war had troubled us less than any other great people. Since our federation, we had fought only one first-class war, that between the states in 1861-65. The war of 1812, the Mexican War, the Spanish War were, socially and economically speaking, comparable only to the small colonial expeditions of Great Britain and France. Beginning with the eighties and nineties of the past century, we had built up a comparatively strong navy; by 1914, it ranked third or perhaps fourth among those of the great powers. However,

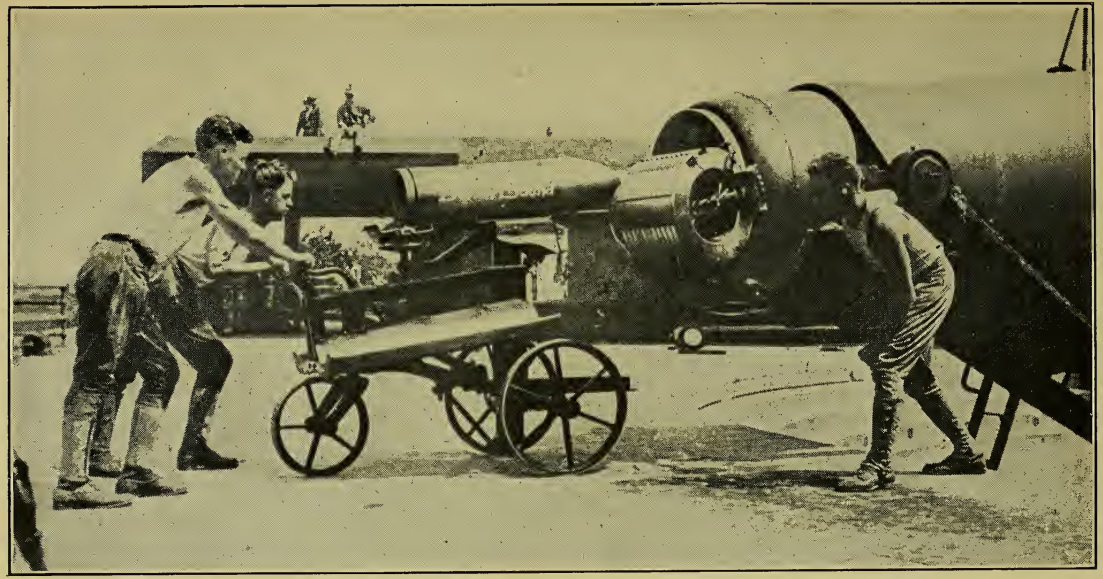
Cost of the World War during its last year



The money the World War cost for a single hour during the last year would build ten high schools costing one million dollars each.

The money it cost for a single day would build in each of the 48 states two hospitals costing $500,000 each; two $1,000,000 high schools in each state; 300 recreation centers with gymnasiums and swimming pools costing $300,000 each; and there would be left $6,000,000 to promote industrial education.

$240,000,000 was the total cost per day for all countries. It includes only direct costs, not the destruction of civil property.



A HALF TON SHELL

The cost of six such shells would pay the salary of an expert one year in the United States Public Health Service to fight influenza.

It is possible that we shall have to do without an adequate number of public health officers in order to provide adequate protection to our shores against invading armies.

our standing army was to European militarists a joke. At one period between the Spanish War and the Great War we had only twenty-five thousand regulars under arms, whereas in several European countries of smaller population than ours the standing army consisted of more than three quarters of a million soldiers; and every able-bodied man had been trained and equipped.

Yet in the year 1920, with the war over and done, with our great army demobilized and our fleets back to the business of manœuvres and visiting, we were spending the greater part of our national revenues on wars, old and new. In 1920, the proportion was ninety-three per cent.

What could our government do with this money? What could it not do!

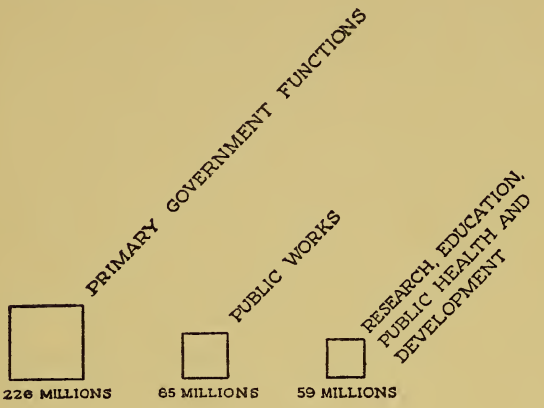
A little before the Great War, I was talking to an expert, nationally famous, on good roads. He spoke of the highways so vitally important in our great and wide-spreading country and of the staggering costs of road improvement. "We could of course pave every country road in the United States," he said, "and the economies it would introduce into transportation would make it a paying proposition in the end. But the initial cost and the upkeep—you can't possibly raise enough money. It would take, I estimate, seventy-five per cent of our Federal revenues." There you are. This "impossible" but paying proposition would take seventy-five per cent of our revenues; war in 1920 took

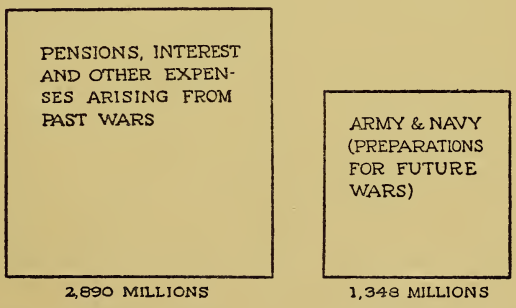
ninety-three per cent. We could make all the common roads of the United States like the famous main highways of France or Belgium, for the cost of our wars, past, present and future—and still have money in the bank.

In our government are a number of bureaus concerned with increasing production, fighting disease, supervising, as it seems that only governments can supervise, the agencies which conserve life and increase production. Our entomologists have reduced such plant scourges as the San José scale and grape phylloxera almost to impotence, so saving us many millions yearly; they are on their way to conquer the boll weevil in cotton. Our ichthyologists have plans, now only partly realizable from lack of money, greatly to increase our fish supply. Our boards of health, under national supervision, have virtually killed yellow fever and smallpox, greatly reduced malaria and typhoid fever, are beginning to attack those "social diseases" which are next to war the great scourge of the human race.

Go into any of these Washington bureaus and some specialist, some practical dreamer struggling along at a salary running from fifteen hundred dollars to three thousand dollars a year, will tell you what "his people" could do to multiply production and improve human conditions, to lengthen and fortify life, to increase the beauty or usefulness of the world "if we only had the money." But they haven't the money. For these activities, the Gov-

Actual expenditures of the United States for the fiscal year 1919-20 (Loans to European Governments not included)





ernment grants less than one per cent of the National revenue. In 1920, the existing army and navy absorbed thirty-eight per cent; and the whole war bill, as I have said, was ninety-three per cent.

What could we, "the pacifist nation of the world," not do with that ninety-three per cent? You remember the Roosevelt Dam in the Far West—hundreds of thousands of acres transformed from desert to fertile farms with a little government money. Millions more are awaiting the same transformation. Here is a chance to increase our true national greatness; but the government, of course, cannot undertake that because it cannot spare the money. Our forests are shrinking; we feel the effect in the rising price of lumber, the shortage of wood-pulp. We need to reforest on a large scale; that work, European countries have learned, can be most cheaply, easily and intelligently done by a central government. We are reforesting, if at all, on a microscopic scale; we are barely keeping down fires. All because we cannot afford the money from our national revenues. Wars, past, present and future, cost too much.

Then comes the period when our long preparation for new wars becomes—action. Then arrives an orgy of spending without return—and a greater war-bill for the future.

But we are treating of "the next war." By that we mean of course not a little "settling" war such as the present British and French campaigns in the

Near East, the skirmishes along the Russian border, nor yet the minor colonial expeditions. We mean a struggle between industrial nations, thoroughly prepared. In terms of economics, will that struggle be less costly than the last, or more?

Cost of Wars to the United States
170 MILLIONS *
119 MILLIONS
173 MILLIONS
3,478 MILLIONS
1,902 MILLIONS
22,625 MILLIONS
REVOLUTIONARY WAR
WAR OF 1812
MEXICAN WAR
CIVIL WAR
SPANISH-AMERICAN WAR
WORLD WAR
*National debt at end of war.

CHAPTER VIII

ECONOMICS AND THE NEXT WAR

In all the major wars of the past three centuries, one traces a certain progression from armed contest between individual nations to armed contest between alliances. Sometimes indeed, two hostile nations are "isolated," as when the rest of Europe managed to keep out of the war between France and Germany in 1870. But the tendency remains. And there is a reasonable cause for this—the increasing speed and facility of transportation, the increasing interdependence of nations. In 1914, according to an authority on transportation, any man was in terms of time eleven times nearer to any given point in the world than in 1814. There you have one explanation for the world-wide spread of the Great War.

If things in this "new world" are to go in the old manner, the chancellories of Europe will seek to keep an impermanent peace, will give themselves a "breathing-space between wars" by forming alliances. With the major nations struggling even for greater advantage, with the smaller nations in growing fear of their own defencelessness, the alliances

will naturally tend to grow greater and greater. "In the next war there will be no neutrals," some say; almost certainly, in the next European war. Spain, Switzerland, Holland, Scandinavia, Greece, will be afraid, remembering Belgium, to remain out of alliances. Indeed, Belgium has pointed the way. A recognized neutral up to the Great War, she has renounced the principle of neutrality, and allied herself with France. Probably the great European powers will draw in the Orient actively—Japan's part, China's part in the late war were merely passive. For the world-machine tends to become ever more complex, and nations ever more interdependent. The swift airship is here; if a man is eleven times nearer any given point than he was in 1814, soon he will be twenty times nearer.

Can we stay out of the next general war? We could not stay out of the last. We are passing from a stage where we depended for foreign trade mainly on raw materials, whose sale does not need to be "pushed," to the industrial stage. Increasingly, our exports will consist of manufactured goods. Foreign markets will be to us not dumping-grounds for short seasons of overproduction but real factors in our national prosperity. And foreign markets for manufactured goods need cultivation, even forcing. With our unrivalled wealth, we shall store up surplus capital, which will find more attractive returns in undeveloped regions at home. That is happening already. Since the war, hundreds of millions, per-

haps billions, of American dollars have been invested in new, promising commercial fields abroad. So, if we play the game as we find it, we shall enter the circle of "financial imperialism" and find ourselves in some way much more closely affected by the next war than we were by the last, and correspondingly under a greater urge to enter it as belligerents.

The spread of the next war may conceivably be limited by diplomacy as was the war of 1870; even so, the next one after that probably cannot be limited; and all our "proud isolation," our tradition against entangling alliances, will not keep us out.

The Great War, considered in terms of economics, began not in 1914 but in 1871, when the French and Germans signed the Treaty of Frankfort—when the European nations began to increase their standing armaments. In the same sense, the next war began when, after the Armistice of 1918, the great powers kept up their armies, started experiments with more efficient but more expensive ways of killing. It will be war by machinery from now on, not war by hand. And machine-work requires a much greater initial outlay of capital than hand-work. Naval warfare has always been war by machinery. It will not be necessary for me to prove by figures the greater cost of a navy, in proportion to the number of men employed, than of an army. That is going to be changed. The tank and the aeroplane have come—air-machines and land-machines, equivalent to the destroyer, the submarine

and the battleship, which are sea-machines. Of course, a big tank can whip a little tank just as a big man can whip a little man. There is no more practical limit to the size of tanks than to that of naval vessels. The same rule probably holds true of aeroplanes. Consequently, as soon as the European powers begin to wriggle out of their present fix, we may expect them, with what margin they have, to begin a race of armament more expensive in proportion to their resources than the race of 1871-1914. The tank of today may be compared to a caravel. We shall have the destroyer-tank; then some nation will come along with the cruiser-tank, and the others must follow or underwrite defeat. And so on, up to the dreadnought tank—a gas-proofed fortress on caterpillar wheels, perhaps as complex and expensive as the sea-dreadnought. And if one alliance increases her fleet of land-dreadnoughts from a hundred to a hundred and twenty, from a thousand to twelve hundred, the rival alliance must let out another notch and follow. You may, if you wish, translate all this into terms of aircraft, and the economic result will be the same.

In the last war, nations learned that they must bend every resource, and especially every industrial resource, to victory. But some of them learned it rather late. Even Germany was for a long time manufacturing and exporting to the adjacent neutral countries such commodities as machinery. Later, in the fierce stress of the war, Germany turned all her

machine-factories into munitions factories. England went on for nearly two years with a business-as-usual policy before she learned she had better make munitions her sole business. There can be no such dalliance in the next war. "It will not be declared; it will burst." Upon the promptness and speed of the initial thrust may depend victory—then or later. Not only must the magazines be always full, the tanks and aeroplanes always in complete commission, the gas retorts always charged; but you must have your factories always ready for an immediate change. You must be prepared at the shortest notice to turn your dye-and-chemical works into poison gas works, your sewing-machines and typewriter factories into factories for shell-parts—and so on through a thousand industries. This requires an industrial readjustment obviously expensive, still more subtly expensive.

When the war comes, you start war-work not desultorily as in 1914, but full speed from the mark—not at a five per cent scale gradually increasing, as in 1914, but as near as possible to a one hundred per cent scale. Your whole population has been mobilized, perhaps partly trained, in advance. Your young woman knows her place in the factory and reports at once to the foreman, just as your young man knows his place in the ranks and reports at once to the sergeant. The process of turning the whole national energy from wealth to waste begins at once, full power. The next war may be shorter

than the last; it can scarcely, at this intensive pace, be less costly.

Concerning the actual destruction of physical property, one may speak with less certainty. It all depends upon the larger strategy. I have suggested the elimination of all life in such a city as Paris—or New York—as a possible result. That could be accomplished by such a gas as Lewisite. Now Lewisite whirled in a lethal cloud over Paris would not greatly injure property. When at length the poison was dissipated, the Opéra would still be there and the Louvre and the great railway terminals and the factories—a little corroded perhaps, but still usable after you cleaned out the corpses and tidied up a bit. So perhaps a better way of breaking up the "resistance of the rear" would be to exterminate not the human Paris but the physical Paris. That could be done in one gigantic conflagration started by inextinguishable chemicals dropped from a few aircraft. The method is practicable even now, in the infancy of chemical warfare; and the military chemists of Europe are experimenting further along these lines. Such a campaign would of course not be confined to Paris; although Paris as a centre for the brains of war, as the most vital knot in the railway web and as a great factory city, is eminently important. It would be aimed also at Lyons and St. Etienne, great manufacturing cities, at Marseilles, Cherbourg, Havre and Bordeaux, the great

ports, at a hundred little cities which do their part in making munitions.

In such a campaign of conflagrations, the loss of life would necessarily be less than in a killing attack with gas. But possibly not much. Imagine Paris suddenly become a superheated furnace in a hundred spots; imagine a swift rush of flame through every quarter; imagine the population struggling, piling up, shriveling with the heat; imagine the survivors ranging the open fields in the condition of starving animals.

Such a campaign could in a few weeks nearly equal the property-losses of the Great War; especially if the defenders, whom I have imagined to be the French, retaliated on the attackers—say the Germans—and burned Berlin and the Rhine towns.

So far as we can see now, gas will probably be the standard weapon of the next war. High explosive will still be used on an extensive scale; but it will be auxiliary to the new killing instrument. It is unlikely that there will be a locked trench-line and a steady bombardment lasting for years. Consequently—ignoring the possibility of great conflagrations—we may hope for a smaller loss in the item of buildings. On the other hand, the bill will probably show a larger item for destroyed fields—agricultural wealth. The struggle just finished was the first in history where any considerable area of land was ruined for cultivation. Now it is a prop-

erty of the new poison gas that it sterilizes—not only kills cells but prevents the growth of cells. Concerning one successor of Lewisite gas an expert has said: "You burst a container carrying a minute quantity of the substance which makes the gas, at the foot of a tree. You do not see the fumes rise; it is invisible. But within a few seconds you see the leaves begin to shrivel. While we are not quite certain, we estimate that land on which this gas has fallen will grow nothing for about seven years." In the next war,—unless we discover meantime some still more effective method of killing—clouds of such gas will sweep over hundreds of square miles, not only eliminating all unprotected life, animal and vegetable, but sterilizing the soil—"for about seven years." What were farms, orchards and gardens will become in a breath deserts. The power of its soil to produce food is the first, vital item in the wealth of nations. It would seem that this increased loss of productive land should at least balance the decreased loss in buildings.

So modern warfare, in its economic aspect, follows the same rule as in its human aspect. Now that we have renounced all pretty rules of chivalry, now that we have put brains into the business, its destructiveness ever increases. There, perhaps, lies the best chance of eliminating it from the world. The desire to create and to conserve wealth is deeply implanted in the bosom of man. Why not? The two primary forces by which a species lives are the

CAMPUS OF THE UNIVERSITY OF MICHIGAN

These and other buildings, thirty-eight in all, represent an investment of $8,000,000. The University has about 500 professors and instructors; 10,000 students; and graduates annually about 1000 young men and women.

At present costs, two or three such universities, each a permanent institution, could be established for the amount that one ephemeral capital ship now costs.

The United States has begun the construction of sixteen such capital ships.

desire for food and the desire to reproduce. This desire springs from the primary desire for food. Someone has pointed out that the temperance reformers of the United States made little progress so long as they harped on the sin of drunkenness. Only when they touched the question on its economic side, showed that alcohol was a great enemy to wealth and production, did the prohibition movement go with a rush. In some fifty years of agitation, pacifists have dwelt on the cruelties and horrors of war—always the moral and sentimental side. Now we are learning that it does not pay. The victor may, relatively, lose less than the vanquished. But victor and vanquished both lose in the absolute. That may be the clinching argument.

CHAPTER IX

"THE TONIC OF NATIONS"

THE moral value in peace, war and military preparation can of course be treated with less certainty than the racial and economic values. You cannot measure virtue with a yardstick nor establish by statistics the comparative virtue and vice, honor and dishonor, truth and falsehood in any man or any race. Here one must rely on general observation.

Up to the great struggle in 1914-18, the militarist and the aggressive patriot had somewhat the better of the moral argument. Obviously the man who offered up his life for the welfare or glory or whatsoever of his clan, tribe or nation is doing a fine, high thing. "Greater love than this hath no man." But modern war is changing even that. Of the ten million killed in battle, the forty million under arms, comparatively few made the supreme sacrifice voluntarily. They were conscripts. They had to go and take the chance of being killed—or die with certainty against a wall. Most of these men had received their one, two or three years of military training. It had involved mental training,

designed to lash them up, when the moment of action came, to a love of war and a desire for victory. That, and the new experience, seemed to keep them in a state of blithe morale for the first few months. There is a curious, exalted state of mind about the early days of a war. All of us who dodged about the rear, immune from its hardships, nearly immune from its dangers, felt that mood. Never again shall I be so poignantly moved by the beauty of paintings, of old cathedrals, of women, of blossoming fields, as during those early days of the war. It was as though I were constantly and pleasantly a little drunk. Now the men at the front—wallowing in filth and misery, hardening themselves against instant death—felt nevertheless something of the same mood. Then it passed, as intoxication will. Thereafter, they "carried on" because they must. They had been taught it was their duty; most of them believed that; but deep down lay a rebellion against the whole principle of the thing. Boards of morale and of propaganda invented the phrase "the war to end war." The men of the trenches clutched at that. "It must never happen again"—you hear the phrase to weariness from the British ranks, the French ranks, the Belgian ranks, the Italian ranks. They did not consider themselves as men making an act of sacrifice but rather as men caught in a wheel from which there was no present escape. Germany went to war in a state of exaltation, lashed up through forty years of military prepa-

ration. But the German ranks must have felt the same; else there would have been no German revolution. Read Philip Gibbs's "Now It Can Be Told" and Henri Barbousse's "Under Fire"—tolerant observers of high intelligence and of wide experience these two—and learn how little exaltation of self-sacrifice there was in Armageddon.

Much propaganda was spilled during the war to show how, in the same manner, Armageddon profited the higher morals of the civilian population. We heard of the "flapper" who became a heroine; of the frivolous matron who put off her silks and chiffons, put on denim and went to work "in munitions"; of the selfish rich man who gave up servants and automobiles and shooting lodges to help finance the war. This was indeed a moral gain—a temporary one at least. It is good for the souls of the overfed that they fast; it is good for the souls of the idle that they go to work; it is good for the souls of the selfish that they feel the thrill of a generous, common emotion. But how large was this special moral gain? Only as large as the upper class. Every country has its submerged tenth and correspondingly its exalted tenth. The other eight-tenths do not sacrifice comfort or nourishment or leisure—at least not voluntarily. They have no margins of the kind to sacrifice. When the accidents of war drove a family ahead of an invading army to perish of hunger or hardship in the fields, when a whole population lived on reduced rations because of a

blockade—that was not a voluntary sacrifice. To take seriously the argument that such a war as we have just endured is good because people "know the nobility of self-sacrifice" is to imply that the upper class is the only class which counts.

Unquestionably, there came with the war a movement back to whatever religion the peoples of Armageddon have. But I could never feel, observing Europe during the war, that this was the highest and healthiest form of religion. With their sons in peril of death, their homes in peril of destruction, their nations in peril of extinction, people turned toward whatever God they had—to ask for something. Nor—again I speak from observation—did this special form of religion seem to survive the war.

And there was a strong back-current which censorships, both official and implied, prevented us from describing while the war was on. Whole classes of the European population threw off the ordinary moral restraints imposed by peace. The performances of a certain large and wealthy group were notorious; and once I spoke frankly on this matter to a woman of the class in question. "Oh, it's eat, drink and be merry, for tomorrow we die," she said. "Our people are doing the things they've always wanted to do. Their inhibitions are off. They feel that nothing matters any more."

At best, whatever moral force was loosed by the Great War seems to me an impermanent thing. It did not survive the Armistice. It became no part of

the moral heritage of mankind. Lord Roberts described war as "the tonic of races." He confused substance with shadow, I think. It is a stimulant, not a tonic. Most of us know the difference. Iron is a tonic; alcohol a stimulant. Iron strengthens the system; alcohol seems to give temporary strength. Iron is a permanent gain; the reaction makes alcohol a permanent loss. It is related that the Oriental alchemist who first discovered alcohol thought he had the elixir of life—and drank himself to death. The militarist mind, still primitive in its workings, still believing that things are so because they seem to be so, makes the same mistake. Regarded in the most favorable light, the state of war is a stimulant, not a tonic.

At the beginning of the late war, we heard from German, French, British and American militarists that nations grew soft through peace. China they set up as the awful example—notwithstanding the fact that war is the only practical activity for which China of the past two hundred years has shown any aptitude. Her Tai-Ping rebellion spilled more blood than any other military struggle of the nineteenth century. But do nations grow soft through peace? The late war seemed to prove quite the contrary.

During the forty-four years between 1870-1914, the Western nations of the European continent, while armed for war, had preserved peace by the concert of the powers. There were small colonial

expeditions, it is true; but those involved comparatively few men, only a little strain on the national resources. Britain's expedition against the Boers was only a second-rate war. Europe never knew a period of peace so long and so profound. When the Germans marched on France, not one in ten thousand French or German soldiers had ever experienced the buzz of a bullet past his ear. From these people grown soft through peace we might have expected cowardice, timidity—whole armies breaking at the first fire. We got unexampled heroism. It was written in the old books on infantry tactics when a body of troops lost ten per cent or at most fifteen, they became an uncertain quantity—even though you had been able to replace the losses, it was time to take them out if you could. In the Battle of the Somme, the Allied Armies regularly kept divisions in the line until the replacements numbered fifty per cent—sometimes more. Whole companies, whole regiments fought so often to the traditional "last handful" that the newspapers scarcely troubled to record such performances—they had grown too common. Study, if you want concrete proof, the record of the famous French Twentieth Corps, recruited from Paris—city men, and therefore most affected by the soft influence of peace.

Militarists have answered that universal military training accounts for this unexpected hardness. Frenchmen, Germans and Italians had been edu-

cated for war, taught to think from their infancy in terms of war; and we are dealing with a state of mind. Then what about the British? The island of Britain had protected herself by navies, not armies. Her small army was composed of volunteers. The average Englishman, Scotchman, Irishman or Welshman did not know the trigger of a rifle from the muzzle. He had never thought of war as a possibility of his life. When Britain took to the draft, she gathered in the last of these young men, ran them through four or five months of intensive training, sent them to the line. Generally such troops, as one might expect, were inferior to the veterans in military technique. They were little if any inferior in "hardness." I saw a British draft-division once literally staggering back to the rest-station. It was a time of special stress, when relief divisions were hard to find. These men had been kept in the line until nearly seventy per cent of their original strength was gone and replaced. Yet they had held firm to the end. I have shown how modern warfare under the conscription system chooses the best, takes their activity from the existing generation, their strong blood from the next generation. That is your true softening process. Nations do not grow hard through wars and preparation for wars. This is another thing which is not so, but only seems so. Armageddon affords proof that the reverse is true.

CHAPTER X

THE DISCIPLINE OF PEACE

ALL this leads up to the question of the moral factor in general military preparation—whether peace-time conscription or universal military training. Is it useful only as a means of national defence, or has it a real value for the general purposes of society? The militarists say that it has. To begin with, it inculcates obedience, and the instinct of discipline. It spreads the habits of civilization among the masses. It takes boys with round shoulders, shuffling gait, uncleanly ways, lawless manners, and makes them straight, upstanding, clean, orderly, obedient men. During the war, they showed us photographs of these awful examples, before and after taking.

Now it is true that tens of thousands of our young men, perhaps hundreds of thousands, were so transformed by army training. But we must consider averages, not exceptions. Millions of others —certainly the great majority—came from a good, sound American environment. All of them in their childhood, most of them in their youth, had practised athletic sport in some form. They presented

themselves to the drill-sergeant with fine, well-developed bodies. They knew how to keep themselves clean. They had been under the tight discipline of the modern world from the moment they opened a first reader—in school, in factory, in business. And after they left school, it was a kind of voluntary discipline making, it seems to me, for higher aims in character than any kind of involuntary discipline.

In the modern world as contrasted with the ancient we all live under strict discipline, partly self-imposed. Every morning, the reader gets up and goes at a set hour to his office or shop. No bugle wakes him; no sergeant barks out the order to fall in and go to work. If he grows weary of getting up at six or seven, he has only to quit his job. He will not be shot or jailed or publicly disgraced for that, as he would if he deserted from the army. To quit the job might hurt his career, might work privation on his family—that is all. Every morning after breakfast I sit down and write. Today, there is a dog-show in town. I want very much to go. I am not going, because I have too much work to do. So I hold myself to writing—voluntarily. Now both the reader and I are doing a thing, it seems to me, better for our mortal fibre than as though the bugle blew us out of bed and the sergeant, backed by the whole force of the United States government, ordered us to work. It is self-discipline, self-control, as contrasted with external discipline, external control. The modern world requires always more

and more of this kind of discipline. That is one reason for the unexpected hardness and valor of all European and American troops in the late war—forty years of the discipline of peace.

The Germans showed the way to the perfect "psychological preparation." Its main object, though not its sole one, is perfectly to overcome the natural fear of death. The Italian peasants of the ancient Roman army, it is said, fought so valiantly partly because the men feared their officers more than they did the enemy. We have found another and more scientific way—the power of habit. Take a man and accustom him to obedience, instant and unquestioned, in every act of his life. To obey becomes in time a fixed habit, almost an obsession. The moment arrives when he must obey the whistle or the officer's command, and advance to probable death. Personal pride, fear of the disgraceful consequences in refusal, love of country, even sense of adventure, urge him forward of course; just as the natural shrinking from pain and death hold him back. But the governing factor in the perfect soldier is the ingrained habit of instant, unquestioning obedience. He goes because his very nervous reflexes tell him that he must.

I cannot find that in the old days of chivalrous warfare conscious hate played much part in the training of a soldier. The ideal—imperfectly felt and realized, but still an ideal—was the generous, adventurous warrior who hated his enemy perhaps,

but who spared him, too. "Brave as a lion, gentle as a woman." The Germans showed that there was a more useful method. "The best soldier is a bit of a brute," they said. In our military schools, we have always forbidden hazing. The German military schools encouraged it, in forms more gross than any of our youth imagined. That was done to cultivate the required touch of brutality. In the close race for victory of the last war, we all had to follow. Uninstructed civilians, visiting the American, French and British training-camps, wondered at the time given to bayonet practice. They knew that the bayonet was rarely used in action. Why so much stress upon it? Any sergeant could explain that. It was a means of cultivating hate, of making your soldier a bit of a brute. That dummy at which you were thrusting—the instructor encouraged you to imagine him a German, to curse him, to work up a savage delight in mutilating him. It was a part of the higher psychology of modern war.

There was propaganda, too—and here I must condense a theme for a whole book. This was one of the human forces existing before the great war, which the war reduced to its scientific terms; made tremendously usable. It was, really, our contribution. The American science of advertising had shown by what means an idea may best be implanted in the greatest number of people. With all the press under control, the European Boards of Morale and Bureaus of Propaganda proceeded with conscious

purpose to put into every people a mob-instinct of hatred for the enemy, man, woman and child. Since everyone who has a pair of working hands is useful to the purposes of a modern war, the hate-propaganda was aimed at the civilians as well as the soldiers. But "keeping up morale" in the army was the main object. Generating hate in the civilian population made toward that end. If the soldier on leave heard from his women, his father and his uncles that the enemy were all a set of ruffians, a race which had nothing in common with the human race, it made him a better hater when he returned to the line. Half-truth was the best tool of this propaganda; but, war being the negation of all ordinary morality, the propagandists did not gag at lies. For a familiar example, there is the story about the Germans cutting off children's hands in Belgium. It was not true. I repeat that I was in Belgium during the first month of the war; that there were German atrocities, some of which I witnessed—atrocities committed by order, for the strategic purposes of the General Staff—but that no case of the kind I mention was ever fully proved. Nevertheless it was a popular war-rumor in the beginning; it had all the qualities which make a story "go." It was taken up by the propagandists, spread as a means of lashing up hate by men who knew better; so firmly fixed in the public mind that I myself have but lately been called "pro-German" for denying it. In fairness, I may add that they lied more grossly in Germany,

especially when the case grew desperate. There, cutting off women's breasts was the favorite nightmare tale.

This hate-propaganda failed a little of its main purposes. The soldier swallowed it less avidly than the civilian population. If you wanted a tolerant view of the enemy, you were most likely to get it from a soldier sitting in a dugout under fire, his gas-mask at the alert. If you wanted to hear that the enemy was a creature not quite human, but a species of gorilla which should be exterminated to the last baby, you must go to some comfortable home in Paris or London—or equally I suppose in Berlin. Indeed, whole elements in the European armies quietly closed their minds to this form of propaganda. British officers of the old school, for example, tried to maintain the tradition of the warrior chivalrous even in his thoughts. It was a conventionality of most British headquarters messes not to speak ill of the enemy. If the civilian visitor introduced the "hate-stuff" into the conversation, he was answered by polite denials or by frigid silence.

All this must be changed in the next war. You must focus your hatred where it is most useful and needed—in the soldiers at the front. And we are studying to change it. The propagandists and boards of morale are working and experimenting like the chemists—coolly reviewing the methods and mistakes of the last war, finding new methods without mistakes.

Has the involuntary discipline of armies much to do with the voluntary discipline of peace? The aftermath of the late war goes to prove that the relation is a little remote. I know hundreds of young men—British, French, Belgian, Italian, American—whom the war seemed to have spoiled at least temporarily for civilian pursuits. Accustomed to be disciplined by others, they seemed to have lost the habit of disciplining themselves. They found it difficult, almost impossible, to make themselves go to work at regular hours, stick to any one job or any practical object very long at a time. This psychological aftermath of the war we all know, I think. You might lay it all to the actual war—its stresses and excitements, its alternate tense action and idleness—were it not that we find the same state of mind in young Americans who were mobilized in the draft, had their year and a half of army training, and never got abroad. It was hard to "settle down"; which means that it was hard to change from imposed discipline to self-discipline, from the regularity of army life to the fast, irregular competition of civilian life.

The world over, we found that the hate-propaganda, the conscious effort to make the soldier "a bit of a brute" had long effects. Everywhere were "crime waves"—highway robbery, burglary, sudden murders of passion. Ours was perhaps the lightest of all. The police records of Berlin in 1919 read like annals of the old days of Jack Sheppard. The

Belgian police were forced, for the first time since Barons ruled in Flanders, to fight organized gangs of bandits. England boasted in old years a low murder rate; and her courts had a swift and certain way of hanging for murder without regard to wealth or social rank. "The unwritten law" did not exist for British juries. Just after the war, England experienced a series of "murders of passion," by ex-soldiers and ex-officers; and British juries acquitted the murderers as lightly as once did Latin judges. How much of this mentality back of these crime-waves sprang from actual experience at the Front and how much from the education in brutality of the new military training, no one of course can say. Doubtless both influences bore on this crime wave.

Here in America and abroad, there are plans afoot for knitting army training a little more closely into civilian life. Experts on physical culture have testified that drill and setting-up exercises, as hitherto practiced by armies, give an imperfect and one-sided physical development. It is proposed to revise army physical training on modern lines. It is proposed, further, to teach the men, while they are in the ranks, the elements at least of useful civilian trades. These are compromises, at best designed to reduce the ultimate cost of armies to society, at worst sops to public opinion. The chief end of military training is to teach men to fight. They must be drilled, first in order to inculcate the instinct of perfect obedience and second so that large bodies

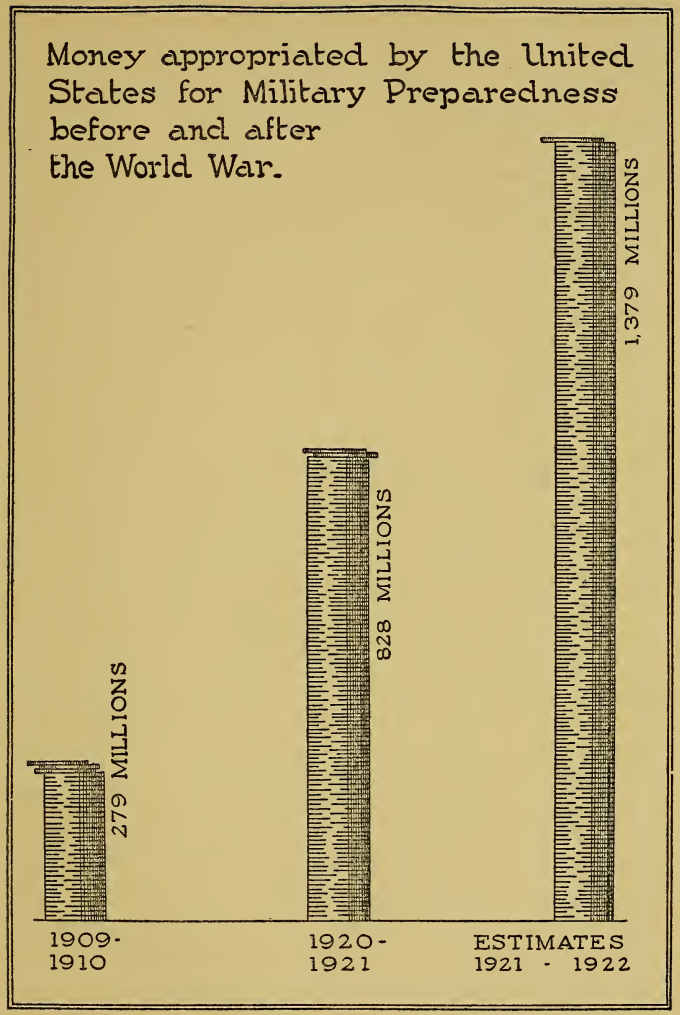
of troops may be moved without confusion. They must learn to use weapons, from the trench-grenade and the rifle to the aeroplane and the tank. Most of this training, from the point of view of ordinary, peace-time industry, is wasted. One of the chief economic losses in military training is the time and energy it takes from the most teachable years of best young men. It will be "war by machinery" in future; and those told off for the higher functions of war—such as tanks, aeroplanes and gas—will get, it is true, a certain training in mechanics and chemistry. But in just as much as these devices differ from the devices of peace, in just so much will the training be wasted, socially and economically.

CHAPTER XI

"DEFENSIVE PREPARATION"

WHAT should be our American attitude toward military preparation? The average hard-headed, practical American will perhaps say that if war has grown so deadly, it is all the more reason why we should prepare to defend ourselves. Without defence, we stand in peril of general extinction; with defence, we may avert war at least for a time, may soften the blow when it comes. Let us prepare then, says the American citizen, not for conquest, or "fulfilment of national aspirations" but for defence.

Yes, provided only that we can, in this age of confusions and complexities, keep our military preparations defensive. And that is extremely difficult. Indeed, when you come to thorough defensive preparation, a hundred per cent efficient, it becomes perhaps impossible. The term "defence" needs defining; it has hitherto been used as a most effective hypocrisy of militarism. Keeping our coasts and borders against an invading enemy is pure defence; no one disputes that. But in the modern world a nation is not confined to its own political borders. The American mining engineer developing a lode


Money appropriated by the United States for Military Preparedness before and after the World War.
279 MILLIONS
828 MILLIONS
1,379 MILLIONS
1909-1910
1920-1921
ESTIMATES 1921 - 1922

for the Ameer of Afghanistan is a part of America, just like the mining engineer driving a tunnel in Colorado. At this moment, that larger America is spreading. There is a new movement in world-industry. Instead of bringing the raw material to the power, men are beginning to bring the power to the raw material. India raises much first-rate cotton; she has also inexhaustible resources of labor. Hitherto, she has sold the raw cotton to England, where the coal is; now, India is going to spin and weave part of this cotton beside her own fields, partly with native water-power, partly with imported coal. We have the money of the world; and American capital has been flowing by hundreds of millions into such projects as this. If we are to have the perfect defence, we must prepare to back up American citizens and "American interests" in India as well as in Indiana, in New Guinea as well as in New York. It is hard, it is almost impossible, to draw the line; so we are pulled insensibly into the old, vicious circle.

There comes a point in any thorough military preparation when the spirit of defence runs subtly into the spirit of offence. Again, Germany is the typical case. She was, her emperors, kings and generals said, "ringed with foes." That, in the beginning, was not an entirely insincere presentation of the case. On one side lay France, smarting with the injustice of 1870; on another lay the barbaric Russia of the Czars, with double Germany's man-

power and an eye on Germany's developed wealth. On her seacoast lay the strong British Navy. "What is Germany?" asked question 1 in the public school catechism on geography, "It is your Fatherland, entirely surrounded by enemies." Militarism was hammered into the German people in the form of defence, defence, always defence. And let me repeat; in the beginning the men who urged this were not all insincere.

Germany went into the game of financial imperialism with the rest. The world was spotted with "spheres of influence," where German capital harvested fields of trade or raw materials for the factories of Berlin, Leipsic, Düsseldorf. These interests must be protected; other capital must be kept out. The German army began to pass from a defensive force to an implied offensive force. In such crises as the transfer of Bosnia and Herzegovina, the Germans won because the Kaiser rattled his sword and the others yielded for fear he might turn loose his perfect army.

There came, too, a mental change. "He who forges the sword will want to wield it." Here is one of the ways in which a national mind works like an individual mind. You have found, we will say, that you play an extraordinary game of lawn tennis. You will not long be satisfied with scrub games. You will want, if you are a normal man, to enter tournaments, to prove your accomplishment and superiority before the world. You discover that you

write good poetry or fiction. How long will you be contented with sugared sonnets among your private friends? Sooner or later you will want to publish it and let the world see how clever you are. And so when you have the perfect army or navy, perfectly knit into the structure of the state, you will find some impulse which you may not at the time analyze, urging you toward its proof in action.

Germany did. There was never such a glittering display of military power as in the old summer manœuvres before the war. Doubtless any German who saw that great charge of massed cavalry by which they always ended, felt somewhere in him a glow as he thought of what Germany might do in real battle. The cloud gathered. With Germany—as even most Germans now admit—lay the decision for peace or war; and she chose war. It is absurd to blame the Kaiser alone; almost equally absurd to blame his counsellors alone. They were carried along, all of them, by a flood which had been rolling up in Germany for forty years.

Yet even then, they maintained the fiction to their people—and half to themselves—that they were fighting a defensive war against the "ring of foes." The average German soldier whom I saw in Belgium during 1914 believed this devoutly. Barbarous Russia and envious England had attacked the Fatherland. He fought in her defence. France must be crushed because she had foolishly joined these major enemies. Poor France! Now, if they

survive, these same Germans are calling France the source of all their woes, the true enemy. For the current is running in another direction, and the strategy of propaganda has changed. But this is a digression. Germany illustrates, among other things, the danger in the perfect defensive preparation and the difficulty of drawing the line between defence and offence.

Some may note that I have not touched upon the question of national honor. The individual in society sometimes meets a situation outside the law so intolerable that he is less than a man if he does not take the law into his own hands; and so it is with nations. The circumstance which drew us into the Great War was an unusually clean-cut example of an unpardonable affront. Germany had announced cold-bloodedly, flatly, that American vessels could no longer sail the most frequented seas of the world; if they did, the hulls would be destroyed, the crews killed without warning. The occasions of war are not commonly so simple as this. "National honor" is more often the excuse for economic and political interests, or the mere focus of trouble arising from a conflict of such interests. The occasion of the Great War, the spark which set the mine, was the assassination of an Austrian prince in Serbia. Behind that lay thirty or forty years of intrigue leading up to a "situation." Austria wanted to make Serbia a vassal economically, and in the end politi-

cally. Germany wanted to extend a "line of influence" through the Balkans in order to build an all-German Berlin-to-Bagdad railway. The Entente nations wanted to prevent all this. Had no such situation lain behind the assassination at Sarajevo, the matter would have been settled with an apology, punishment of the criminals and perhaps indemnity.

Let us imagine another case. Mr. Colby, then our Secretary of State, visited South America in 1920. Suppose that in Rio de Janeiro some fanatic or band of fanatics had murdered him. Would that have led to war between the United States and Brazil? Almost certainly no. But suppose that Brazil and the United States had long been engaged in an economic and political struggle to control by their capital the resources of Ecuador, Colombia and Central America. Suppose them both prepared to the last belt-buckle. Would it then have led to war? Almost certainly yes. And most Americans would say—as did the Austrians in 1914—that we were drawing the sword to avenge national honor and wipe out an intolerable insult.

Building up armies, navies, and munitions industries solely through the fear of national insult, solely to protect honor, seems a little like carrying a loaded pistol night and day lest perhaps someone insult you intolerably, beyond recourse of law.

Yet the fact remains: few Americans of spirit will want, in this era of the world, to strip us of all our defences. That goes beyond the reasonable pacifism

which has hitherto been the general American attitude toward war. It becomes the non-resistance of the dreamer, Tolstoi. Apart from its danger, completely laying down our own arms would be no good, except by example. We must reach further back than that into the structure of things; try, with all the others, to repair this world-machine. At present, it is like some great, complex engine which has broken a vital part. It tends to beat itself to pieces with its own power.

CHAPTER XII

THE DRAMATIC MOMENT

Now is the appointed time to begin action, and we are the appointed people. The lesson of the last war is still fresh in mind; and unto us, by luck rather than our own foresight, has been given the dominating position in the world of the next quarter-century. The course which the United States chooses will largely be the course of the other nations.

It is the appointed time for still another reason, less obvious, no less compelling. All old, imperfect human institutions have their uses in their period; then that usefulness passes and we must rid ourselves of them. Monarchy in its absolute form served the development of humanity. The half-civilized man could not grasp conceptions so abstract as his relation and his duty toward other men in his group or clan or nation. He needed a visible, personal representation of power. So was built up loyalty; from loyalty grew the fine sentiment of patriotism; from patriotism the sense of team-work in society. Then monarchy was outworn. We sloughed it off, at first in its absolute form, then faster and faster in any form at all. Slavery may

have been necessary to build up the habit of steady work among tribes and nations. Races learned the habit of steady work, and sloughed off slavery.

War on the whole was long useful to humanity—expensive, but the best way we had. I have previously quoted Wells to show how it drew races into the circle of progress. Long before there was history even in popular ballad, some genius in some tribe of the Asiatic steppes invented the wheel. His tribe went to war and won or lost—that does not matter. Before the war was over, the enemy had seen the wheel, learned its usefulness, was making wheels of his own. But for war, outlying tribes on the fringe of humanity might have skidded their heavy burdens along the ground for centuries and æons. At the end of the Stone Age, some savage discovered that tin and copper, thrown into the fire, melted, blended, produced a substance which could be hammered to a fine, sharp edge—a tool much better than any chipped stone. He used his bronze knife in war; the enemy felt its edge, admired, penetrated the secret, passed it on by war to tribes still further outlying. So we progressed from the Stone Age to the age of metals.

War, too, worked with monarchism to develop what scholars call the group-consciousness. It stirred up in men a fine, high, human emotion for the humanity outside themselves. The average man in all times and all nations up to the eighteenth and

nineteenth centuries led an extremely limited life. Of his own motion, he seldom stirred from his own domain or farm or village. War alone drew him out to teach him that there was a world beyond his horizon, that there were other men with other ideas not only among his own people but among stranger clans. War made a tremendous contribution to human experience, to collective human consciousness. That was its use, its larger reason for being.

Now, modern invention has changed all that. We no longer need a process so essentially wasteful to transmit the results of progress. When Wright proved to Europe that a man can fly through the air, the news was flashed that very night to every corner of the globe; three-quarters of the civilized world read it next morning. Within a month, such remote points as Shanghai, Cape Town and Buenos Aires had European publications with technical reports; any good mechanic who wished could go about building an aeroplane. The remote parts of the globe were by now coming fast into the circle of communication. Before the Great War, all the inaccessible places had been explored—even Thibet and the two poles. The world had no more secrets and mysteries. From end to end of Africa, the infant continent, ran a railroad; Africa was spotted with European settlements, in touch with civilization by telegraph-lines. The printing-press, the railroad, the automobile, the electric telegraph have all given

their part toward the intensity of modern war; yet at the same time they have removed one of its supreme necessities for being. As for its other use—instilling into men the sense of a duty toward his country or his group—that work also is done. In fact, when one considers the conceited, excessive, Jingo patriotism of most races and nations, it becomes a question whether it is not too well done.

We cannot say at what precise moment in history monarchism and slavery proved themselves outworn, past their usefulness; became not benevolent organs but dangerous rudiments—like a vermiform appendix—in the body politic. But war, always picturesque, died its spiritual death dramatically. We may say with certainty I think that it proved itself outworn during that little moment of history between 1914-18. It was of no more use in spreading progress, of little more use in building up the sense of collective duty. And in itself it suddenly became dangerous, sordid, disturbing beyond the imagination of devils.

Two great tasks lie before humanity in the rest of the twentieth century. One is to put under control of true morals and of democracy the great power of human production which came in the nineteenth century. The other is to check, to limit and finally to eliminate the institution of war. This last is the more important. We may stagger on, and make progress even, though the industrial and financial structure remains as it is—we were

doing very well, on the whole, before 1914. But if war goes on unchecked, following its present tendencies, it means the elimination of whole races —always the best races—and the downfall of civilization.

CHAPTER XIII

PROPOSED WAYS TO PEACE

PERHAPS we cannot eliminate war. It seems so deeply rooted in human institutions! It is so easy to stir up hate, so hard to create understandings! Thus, in the late eighteenth century, the republican must have felt about the elimination of kings. The institution of monarchy appeared unassailable—the task seemed at times hopeless. And surely we cannot, unless we work up the zeal of those early republicans, make reasonable pacifism a governing motive in our political thinking and action.

Yet this reasonable pacifism had made progress, even before the late war. Peace, all the reference books will tell you, had in the nineteenth century cast off its old negative meaning and taken on a positive meaning. It was no longer regarded simply as the rest between wars; it was an end in itself. The Hague Conferences, powerless as they were to prevent either the great war or its barbarities, still showed that a great part of humanity wanted peace, would take much trouble to get it. We, by our relations with Latin America, proved how two continents might live in practical harmony. When Secre-

tary of State Blaine called the first conference with Latin America, he set up a milestone on the road to permanent peace.

So strong indeed had become this desire and hope among most Western European nations that the very militarists among the Allies were forced during the late war to use the phrase "the war against war" in order to keep up the fighting spirit among their people. And when the war was over, the attempt to form a League of Nations afforded still another proof. I shall not enter into the late controversy. But the League was the work of politicians, all responsible to democracies for their jobs. They would never have made the attempt had they not believed that it would be popular.

The Peace of Versailles, imperfect though it may have been, proved in other ways how far we had moved beyond old conceptions of national glory. After former wars, the conquerors usually took over without shame the territory of the conquered, no matter how the inhabitants felt. Even as late as 1871, the neutrals did not protest officially and but very little unofficially when Germany seized the unwilling Alsace-Lorraine. But in the Peace of Versailles, European statesmen had to give at least lip-service to the principle that no nation or no part of a nation may permanently be held by a conqueror against the will of the inhabitants. Again: they did this because they were politicians, and had satisfied themselves that a new moral consciousness in man-

kind demanded a new conception of national rights and methods.

Back from the war came the plain men of the democracies old and new—thirty or forty millions of them. The greater part of them, and especially the thinking part, had been quarreling in their thoughts with the institution of war. If our returned soldiers felt this less than their European comrades, it was because they had borne a shorter strain and had needed less of the propaganda of peace through war to keep up their morale. The *Société des Anciens Combatants* in France corresponds to our American Legion. Lodge after lodge of that society in 1919 passed a resolution saying that their real object now is *"la guerre à la guerre"* (war against war). The rumor, spread by governments as a feeler, that the British and French armies were going to Russia to fight the Bolsheviki produced instant riots and mutinies. I witnessed the Ruhr Rebellion of April, 1920, in Germany. Now while this revolt was stirred up by the Communists, the average Ruhr insurgent, I found, was out primarily to end militarism. "If those soldiers have their own way," said the men of the Ruhr, "we'll be fighting the French again in two years. We don't want any more wars."

Yet so strange are these times that governments, supposed to be the expression of peoples, emerged from the Peace of Versailles more nationalistic, perhaps more belligerent, than ever before. Na-

tionalism, the denial of peace, is running riot. Those returned soldiers, with all their pacifist sentiment, find themselves like the rest of humanity caught in a wheel. Jean the Frenchman does not want any more war. But the North lies devastated; until the fields of the Somme are bearing again, the chimneys of Picardy smoking, his shop will never do good business. Hans the miner of the Ruhr district got out his army Mauser last year and tried to shoot a reactionary officer in order to show that he wanted no more war. But Hans believes that the indemnity which France wants is excessive; he knows that if Germany pays it, he himself will have lower wages and higher taxes all his life. So Jean and Hans put their interests into the hands of the strong men of Europe—men with the old ideas, men whose conception of statesmanship is force unlimited. "His only scheme of politics," said an American diplomat of an eminent European confrère, "is 'send a division.' "

The pacifism of the returned European soldier, of the disgusted but submerged European civilian, is a somewhat abnormal state of mind. It resembles a little the psychology of a religious revival. Not even the most enthusiastic revivalist expects that his people will maintain permanently all those heights of fervor and virtue to which he has raised them. The wise church is the one which consolidates its gains; makes the revival or mission yield permanent fruit in sober, day-by-day piety, unselfish-

ness and good living. If we let this moment pass, the nations will forget. The memories of the horrors, the destructions, the follies of Armageddon will die out as its debts are paid off, as the new generation grows up; and, as in old wars, only the souvenirs of its glories will remain.

Now, I repeat, is the appointed time to consolidate what Armageddon won for peace, and we, both actually and potentially the strongest nation of the world, are the appointed people.

Along what practical lines may we proceed?

Doubtless accumulated experience, translated into policies and action by men of genius, and leadership will find us new ways. But here are the courses of possible action on which many are thinking at present and a few working:

First and most drastically, we may create a real law, not a mere set of gentlemen's agreements between nation and nation. That is the kernel of the matter.

Law is the set of agreements, backed up by some kind of force, to prevent murder and theft and injustice between the individuals of a tribe or a state. In the savage beginning of things, men probably killed whomsoever they wished, took whatsoever they desired. But people could not get along and make progress on that plan. An individual with the fighting endowments of a Jack Dempsey had it all his own way. Before long, men got together and drew up primary rules of the human game. You

kept, we will say, the stone knife which you had chipped for yourself. No one might take it from you except he give an equivalent; no one might kill you except with certain definite excuses. It was further agreed that whoever broke this rule should be punished by the collective action of all the rest. No one man could thrash the Jack Dempsey of the tribe; but two or three men could, much more the whole tribe. That was the beginning of law and order—an understanding as to the rules of the game, an agreement to punish whoever broke those rules. Wise old David Lubin used to say that he believed this was also the beginning of morals. And indeed, even if there was in primitive man some inbred sense of kindness and of property right, that feeling never expressed itself in action until men drew up rules and agreed to back them by force.

Nearly everyone who thinks must have wondered at times why it is supremely wrong to kill a fellow citizen in time of peace, supremely right to kill a foreigner in time of war; why lying and deceit, despicable when used against your fellow-countryman, become noble when used against your national enemy. I have explained the reason. As soon as we organized states and tribes, we began to endow them with a personality, to give them a being. And between these beings the law did not run. They had never got together, to draw up rules of the game and provide penalties against the violators of this code of morals. Consequently, there were real-

ly no morals between states. If in times of peace nations refrained from murdering the citizens of other nations, from seizing their property, that was because they feared the disagreeable consequences involved in these acts. It was, again, like the state of primitive society before men made laws and organized a police force. When one primitive man respected his neighbor's property, it was because he did not care to get into a fight. The process was too disagreeable; it was not worth while. But when his desire grew greater than his fears or when his blood was heated, he took or killed with at best only a vague sense of moral wrong.

But finally, when the law within nations became so perfectly established that murder, theft and arson grew uncommon, sporadic, it was as though the reservoir of morals filled up and began to flow over the dams dividing nations. Diplomats and others who represented sovereign states went on lying, deceiving, committing daily in peace or war acts which, performed by one citizen of a state against another, would have been punished by ostracism, jail or the gallows. And they justified themselves to themselves and their fellow-citizens because it was done for the flag, the Patrie, the Fatherland. The cause sweetened any method. But public opinion concerning some of these methods grew so strong as to force these gentlemen at least to hypocrisy. Since the state knows no morals in its relation with other states, a treaty used to be a sort of temporary agree-

ment for temporary advantage. You kept it because it did not suit your convenience to break it. If a treaty became no longer convenient to one party or the other—well, kings used to tear up treaties and feel very little necessity for apology or explanation. When Germany violated one of her most solemn treaties and invaded Belgium, she broke, really, no moral law. Do not believe that the cynical diplomats of the Entente Allies blamed her in their hearts. But peoples did blame her. The moral sense of individuals the world over rose against such an act; a man who behaved in this way counted himself out of society; why not a nation, too? The one fact which German propaganda could never explain away was the invasion of Belgium; it is perhaps the spiritual reason why Germany lost the war.

So we have already the moral basis for law between nations; at present, however, it is a force, not a power, because it has no machinery to make it useful. It is like the potential electricity going to waste in a mountain river. This force will not become power, will not turn wheels, run railroads and light cities, until you harness it—create for it some machinery.

We shall not strike at the root of wars until we organize fifty or sixty sovereign nations and self-governing colonies of the world somewhat as we organize individuals in a tribe or state or nation. In plain, human terms, they must get together, pass

laws to define and forbid national murder and national burglary, and agree to punish, with their collective force, any violator of that law.

The punishment need not wholly, need not mainly, consist in physical force. The discussions preceding the League of Nations showed, theoretically at least, that a general economic boycott might be as effective as military action. This follows a rule of progress in human society. Once, law knew only one kind of penalty for crime—physical action. The criminal was killed or mutilated or flogged. In the eighteenth century, the English would hang a man for stealing six shillings. We have done away with flogging and mutilation, have abolished hanging except for the gravest crimes. We have substituted imprisonment and fine. Think it out and you will see that imprisonment is mostly an economic penalty, as a fine is wholly an economic penalty.

This book, I repeat, is not a plea for or against the existing League of Nations. Call your organization a League of Nations, an association of nations, a Hague Tribunal "with teeth in it"—call it what you will, organize it how you will. This is the specific for the disease of war. But while we wait for this inevitable organization to form and to become effective, we may use a few pain-killers and poultices.

Among these, the most important is disarmament —a pressing, vital question of the moment. Behind the present agitation lies a compelling economic

motive. Europe cannot recover if she goes on with the old race for armaments. She will collapse under the double burden. The world is so interlocked that if Europe blows up in anarchy we, though we hold together, must suffer terribly. An agreement to limit armies and navies to the point where they cannot be used aggressively can probably be enforced. We have no formal law between nations, it is true; but that uncharted moral opinion of democracies is perhaps powerful enough to secure a rough working agreement until we get something better. It cannot be done without the consent—indeed without the leadership—of the United States. We have as much economic and industrial power to manufacture navies and munitions as any three European nations, more population to furnish soldiers than any two Western European nations. If we arm to the teeth, the rest must follow through fear.

Such partial disarmament will serve not only as temporary alleviation; it will be also in the nature of a remedy. Whatever movement sets the nations thinking positively about peace, whatever forces them into co-operation instead of competition, makes toward their final, complete understanding. Finally, it will prevent the psychological drift toward war which comes with perfected armaments.

If I have anywhere made it appear that the term "militarist" is equivalent to the term "professional soldier," I have done the military clan a wrong.

Only lately our two most eminent soldiers, Bliss and Pershing, have come out flatly for a disarmament program. They admit that it will not be easy; and no more will it. You cannot complete the job with a Congressional resolution and a flourish of the pen. Too many eminent gentlemen in all nations have something to gain by the race of armaments. But it is a first necessary step.

Then, even before we have a league, association or effective High Court of Nations, we may get at some of the economic causes for war.

The "financial imperialism" which brought on the Great War had three wholly commercial objects—trade, raw materials, export of capital. The struggle for trade—for profitable foreign markets—is, in the opinion of many economists, the least dangerous of the three. For while it is a cause of friction, it has also a pacific tendency. When two nations begin to trade with each other, there follow personal acquaintance and a community of interest. We saw that at the beginning of the Great War, when many Americans in the exporting business sincerely took sides either with Germany or England because they had with Germans or Englishman business relations and personal acquaintance. The most dangerous factor in national trade is tariffs. I am not preaching for or against tariffs. But they can be so drawn as to take unfair advantage, to work injustice against some given nation. The tariff is no longer purely a domestic question. We must draw

our schedules no longer with an eye solely on immediate national prosperity; we must consider them also in the light of good and just international relations.

Some kind of international agreement concerning the distribution of raw materials seems necessary to permanent peace. If any great nation should in this year corner the international supply of flax, for example, the great linen industry of Belgium would be ruined; for Belgium raises only a little domestic flax. Italy has most expert and intelligent workmen, together with certain other manufacturing advantages; she has no coal nor iron ore. Shut off coal and iron from Italy and the Valley of the Po knows acute distress. No longer should any nation or combinations of nations be allowed to monopolize any imported raw material.

Finally: the advantageous export of capital was perhaps the main object of financial imperialism and so one of the main causes for the late war. In the intense struggle at home, your capital would yield you only three or four or five per cent. Put into a new, undeveloped country, it might yield you—anything. Only it would not return its big interest-rate for long if other capitalists in other nations themselves saw the chance, came in, and competed. The game of the international flotation houses which represented national surplus capital was to keep their "sphere of influence" exclusive. This was the chief commercial object of the huge arma-

ments, the rattling of swords when diplomacy ran into a deadlock. Before the Great War that process was running a dangerous course in China. Here, you were in a British "sphere of influence"; in general non-British capital was not wanted, could not get a foothold. Here, the influence was German; here, French. And the nations were jockeying to extend their sphere further and further into China—without regard of course for the feelings of the inhabitants.

Some internationalization of export capital seems necessary to permanent peace. This may come through an association of nations; it may come before that association is effective through action of the great flotation houses. Most banking men want peace; war is too disturbing, armaments are too costly. But in strategic control of the world's financial interests before the war were too many ruthless adventurers allied with the military and financial adventurers. Banking also was caught in a wheel. There are the signs that sober sense is coming into this business. The "Chinese consortium" is an association of the capital of many nations for investment in China. It may be open to criticism on some grounds; but let us give credit where credit is earned. Such an arrangement tends to do away with "spheres of influence," with the seeming necessity for keeping up armament and a state of passive warfare in order to protect export

capital. It squares with the international finance of the future.

Last but not least, we Americans have it in our power to abolish that secret diplomacy which, everyone agrees, makes toward wars. We cannot have much secret diplomacy ourselves, since all our international agreements must be thrashed out and ratified in the Senate, and so published. The trend of the period, fortunately, is against the gum-shoe method of arriving at national understandings which become in due time misunderstandings. Really, monarchs before the great war had not nearly so much irresponsible power as diplomats; and the right to conceal their agreements from their people was their best tool. That is changing. Great Britain, once as much a sinner as the rest, has but lately registered and published with the League of Nations the twenty-one treaties and agreements which she has made since the war, has given her national word of honor that she is holding nothing back. Even before we enter some kind of association of nations, we have probably the power to end much of the secret diplomacy. We need merely announce that we will not recognize any treaty which has not been published to the world.

Yet—returning to the kernel of the matter—we, the citizens of the world, shall not find that the organization of law between nations is enough in itself

to keep peace; just as within the nations of the world law alone is not enough to prevent crime and establish order. You may happen to see this morning a beautiful automobile which you would like to own, standing unlocked and unguarded. Why don't you jump in and drive away? First, because you fear disagreeable consequences from the law. The police will chase you, probably catch you, eventually put you in jail. But is that the only reason? No; you are restrained by an instinct first implanted in your little, savage bosom at your mother's knee, and intensified by your whole education—the feeling that it is wrong to steal. In order to keep society together, we need both these forces.

So it goes with this question of order and morality among nations. We need the law; we need also personal ethics—international morality. By the forces of light which we have—churches, schools, all associations of men for spiritual and intellectual ends—we need to strengthen the belief that a state, including your own, *can* do wrong, that between nations there is such a thing as live and let live, that humanity is greater than mere race.

This does not mean abolishing the sentiment of patriotism. There are two conceptions of that noble old emotion. One ends at the mental condition of Germany in 1914—the state for the state's sake, your hand ever on your sword to protect her honor and her interests, though every person in the state be rendered less happy by the process. The

other regards the nation as an agency for the greatest good of the greatest number. He who follows this conception takes his pride not in his nation's hollow victories of arms but in her achievements of order, common prosperity, art, science, industry. The one is the old-fashioned patriotism, grown in the twentieth century to a world-menace; the other is the patriotism of the future.

Again let me make a human comparison. In all times poets have sung of the nation as the Mother, of its citizens as her sons and daughters. Now you may interpret your love for your mother in two ways, one sane, the other a little insane. You may work peacefully to keep her happy and well-housed and well-fed. This, I suppose, states the attitude of most of us toward our mothers. But of course you may go round with a pistol in your pocket, always ready to start a fight with anyone who may say that she is not the best of mothers, or watching for an opportunity to hold up a shop and steal the fur coat which she happens to want. So, I suppose, the savage expressed his love for his mother in the days before the law; in recent ages we have had less and less patience with this form of filial devotion.

CHAPTER XIV

THE TEMPTER

Now, my America, I will take you to an exceeding high mountain; I will show you all the kingdoms of the world and the glory of them.

What an opportunity we have in this year 1921! Here we sit in the midst of our Continent, great and rich as all Western Europe. Almost are we unscathed by the war, while the others which were Powers but six years ago struggle now with anarchy and bankruptcy. The power of Powers has been given into our hands.

The British navy once held mastership of the seas. We can now take mastership ourselves. Ships are made of steel; the great steel-producing nation may if it wishes be the great naval nation. And steel is made of coal and iron. While the British coal measures ever shrink, we have only begun to tap ours; while the British struggle for imported iron ore, we mine more than we need. And so clever are we at mass-production that we make more steel to the man and to the furnace than any other people of the world. Great Britain kept her navy stronger than that of any two other powers; we,

with less effort, may keep ours stronger than that of all the other powers.

Think, too, of our military potentiality! We may, if we will, summon to the colors more soldiers than France, Germany and Belgium put together. And what soldiers! Beside our stalwart divisions, their comrades on the European battlefields looked scrawny. We have learned war, now; the American army has been brought up to date. We have at this instant more munitions, lying greased and ready in storage, than any other nation on earth. We have more manufacturing power for new munitions than any other two nations. Back of it all, we have the American ingenuity which gave the world so many of its industrial inventions in the nineteenth century. We, of all, will know best how to keep ahead of the new warfare. Did we not invent Lewisite gas? Did we not show how aeroplane engines, hitherto manufactured painfully by hand, could be poured out by machine processes, like Ford cars?

South from our borders to the isthmus runs a succession of undeveloped countries, as rich and nearly as large as our own national domain. They need capital; we are exporting capital faster and faster. Here lies much profit for us all—if we can keep the field exclusive. Our diplomacy, if backed by the unprecedented military power we have at command, can keep it exclusive. Then, some day when we hold a tight financial grip on Mexico, Guatemala

and the rest, there may follow—incidents. We may find it necessary to go down and take these countries over—as a means of defending Americans and American capital abroad. Why not? Is not our civilization better than that of Mexico and Guatemala? Will not the inhabitants be higher and better if we take over their responsibilities and make them Americans?

Canada lies to our North; very rich in resources, less developed than we are; inhabited by people with the same language as ours, of very much the same habits of thought. When we have the dominant navy, perhaps the British Empire may break up; perhaps Canada may wish to throw in her lot with us, either as a member of our Confederation or as a close ally. West of us lies the Pacific; with our dominant fleet, we may make it an American lake.

What national greatness, what glory! "Dominion over palm and pine"—why, we shall hold dominion over Arctic tundra and tropical jungle. No empire, whether it be Rome of the second century or Spain of the sixteenth or Great Britain of the nineteenth, ever held complete, undisputed mastery of its own continent. But we shall. The old Spain of the Philips called the Mediterranean "Mare Nostrum"—our sea—the little Mediterranean! Our sea will be the Pacific, mightiest of all oceans. With what a thrill may the schoolboy of 1950 sa-

lute our flag, symbol of such power and glory as never was since history began!

So was Germany led to an exceeding high mountain. Germany listened to the tempter and chose the kingdoms of the world. And Germany in 1921 . . .

Ah, but the tempter never lets you read to the end of the chapter; never shows you the whole picture. Behind these gorgeous visions floating in rosy mist lurk death . . . poverty . . . starvation . . . despair . . . a civilization become offal and ashes. He does not show you these; he knows that he is at war with the purposes of eternity.

THE END

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